Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Don A. Ostler, P.E.
Director

Utah!
Where ideas connect

Department of Environmental Quality
Division of Water Quality

288 North 1460 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
(801) 538-6146
(801) 538-6016 Fax
(801) 536-4414 T.D.D.
www.deq.utah.gov

September 18, 2002

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Department of Environmental Quality
Division of Water Quality
Attn: Stacy Carroll
P.O. 144870
Salt Lake City, Utah 84114-4870

If there are any questions, please contact Edith Van Vleet at (801) 538-7015. Thank you for your assistance.

Sincerely,

Gayle J. Smith, P.E., Manager
Permits & Compliance Section

GJS:JH:ev

File in:
☐ Confidential
☐ Shelf
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Refer to Record No. 0064 Date 09182002
In C/ 015001820002 Incoming
For additional information

0064

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Division of Water Quality
288 North 1460 West
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COPY

OK

September 19, 2002

CERTIFED MAIL
(Return Receipt Requested)

Incoming
0/015/018
Copy letter
Jim Smith
Copy to UPDES book
(2-sided)

Dennis Oakley
Environmental Engineer
P.O. Box 310
Huntington, UT 84528

Dear Mr. Oakley:

Subject: UPDES Permit UT0023604, Pacificorp-Deer Creek Mine

Enclosed is a draft copy of the UPDES Permit No. UT0023604, the Statement of Basis, and the Public Notice for your facility.

If you have any questions with regards to this matter, please contact James Hawkes at (801) 538-9449.

Sincerely,

Gayle Smith

Gayle J. Smith, P.E., Environmental Engineer
Permits & Compliance Section

GJS:JH:ev

Enclosure

RECEIVED
SEP 24 2002
DIVISION OF
OIL, GAS AND MINING

cc: Linda Himmelbauer, EPA Region VIII (W/encl)
Claron Bjork, District Engineer
Dave Ariotti, Southeastern Utah District Health Dept
Wayne Hedberg, Division of Oil, Gas and Mining, DNR (W/encl)

File in:
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Date 09/19/02 for additional information

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September 23, 2002

DIVISION OF WATER QUALITY
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

PUBLIC NOTICE OF RENEWAL OF UPDES PERMIT

PURPOSE OF PUBLIC NOTICE

THE PURPOSE OF THIS PUBLIC NOTICE IS TO DECLARE THE STATE OF UTAH'S INTENTION TO ISSUE A UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMIT UNDER AUTHORITY OF THE UTAH WATER POLLUTION CONTROL ACT, SECTION 19-5-104 AND 107, UTAH CODE ANNOTATED 1953, AS AMENDED. SAID "PERMIT " REFERS TO UPDES PERMIT AND THE STATEMENT OF BASIS. (INCLUDING THE TOTAL MAXIMUM DAILY LOADS (TMDL'S), IF APPLICABLE, AS PER SECTION 303 (d) OF THE FEDERAL CLEAN WATER ACT (CWA).

PERMIT INFORMATION

PERMITTEE NAME:	Pacificorp-Deer Creek Mine
MAILING ADDRESS:	P.O. Box 310, Huntington, UT 84528
TELEPHONE NUMBER:	(435) 687-4825
FACILITY LOCATION:	8 Miles West of Huntington, Utah 84528
UPDES PERMIT NO.:	UT0023604

BACKGROUND

PacifiCorp-Deer Creek Mine has a Standard Industrial Bituminous Coal Underground Mining Permit. Outfall 001 consists of surface runoff water discharged form a settling pond into the Deer Creek. The discharge consistently meets water quality standards. Outfall 002 consists of ground water pumped out of the mine and is discharged into Deer Creek and/or Huntington Power Plant.

PUBLIC COMMENTS

Public comments are invited any time prior to October 26, 2002. Comments may be directed to the Department of Environmental Quality, Division of Water Quality, 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. All comments received prior to October 26, 2002 will be considered in the formulation of final determinations to be imposed in the renewal permit. A public hearing will be held if response to this Notice indicates significant public interest. A public hearing may be held if written requests are received within the first 15 days of this public comment period that demonstrate significant public interest and substantive issues exist to warrant holding a hearing.

FURTHER INFORMATION

Additional information may be obtained upon request by calling (801) 538-6146 or by writing the aforementioned address. All information appropriate to this permit renewal is available for review at the Division of Water Quality, 288 North 1460 West, Salt Lake City, Utah.

STATEMENT OF BASIS
PACIFICORP-DEER CREEK MINE
UPDES PERMIT NUMBER: UT0023604
RENEWAL PERMIT
MINOR INDUSTRIAL

DRAFT

FACILITY CONTACTS

Dennis Oakley
Environmental Engineer
P.O. Box 310
Huntington, Utah 84528
(435) 687-4825

Carl Pollastro
Manager of Tech. Services
P.O. Box 310
Huntington, UT 84528
(435) 687-4701

DESCRIPTION OF FACILITY

This mine is located in section 11, township 17 south, range 7 east in Emery County, Utah in Huntington Canyon off U.S. 31, approximately 8 miles west of the Town of Huntington. It has a Standard Industrial Classification code 1222, Bituminous Coal Underground Mining.

DESCRIPTION OF DISCHARGE

Outfall	Description of Discharge Point
001	Located at latitude 39°21'36" and longitude 111°06'35". Consists of surface runoff water discharged from a settling pond into the Deer Creek. The discharge is approximately 0 to 100 gallons per minute and consistently meets water quality standards.
002	Located at latitude 39°21'29" and longitude 111°06'57". Consists of ground water pumped out of the mine and discharged to the Deer Creek and/or the Huntington Power Plant. The discharge is approximately 600 to 800 gallons per minutes and consistently meets water quality standards.

The last three years of State monitoring and daily monitoring report data show no significant violations. See attached data.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

An updated intercepted groundwater study will be submitted by April 30, 2003.

Storm water monitoring requirements have been added in Part I.E.5.a. The permittee must monitor their storm water discharges associated with industrial activity at least quarterly (4 times per year) during years 2 and 4 of the permit cycle. The permittee shall submit monitoring results for each outfall on *Storm Water Discharge Monitoring Report* (*SWDMR*) forms. The following tables lists the storm water monitoring requirements.

Monitoring Requirements for Coal Mining Facilities

Pollutants of Concern	Cut-Off Concentration
Total Recoverable Aluminum	0.75 mg/L
Total Recoverable Iron	1.0 mg/L
Total Suspended Solids	100 mg/L

RECEIVING WATERS AND STREAM CLASSIFICATION

Deer Creek Mine discharges into Deer Creek, a tributary of Huntington Creek. Deer Creek is designated according to *Utah Administrative Code (UAC) R317-2-12.2* as High Quality Waters-Category 2, Class 1C, 2B, 3A, and 4.

Class 1C – protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.

Class 2B – protected for secondary contact recreation such as boating, wading, or similar uses.

Class 3A – protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.

Class 4 – protected for agricultural uses including irrigation of crops and stockwatering.

BASIS FOR EFFLUENT LIMITATIONS

Applicable technology based standards for Coal Mining are found in *40 CFR 434*. These regulations specify a 1 day maximum total suspended solids (TSS) of 70 mg/L. TSS monthly average limits of 25 mg/L, TSS weekly average limits of 35 mg/L, and pH limits are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. Coliform and biochemical oxygen demand limits are not included since the permit prohibits the discharge of sanitary wastewater.

The iron limitation of 1 mg/L is based upon the State's numeric criteria for Class 3A waters.

The mass limitation on total dissolved solids (TDS) is based upon criteria established by the Colorado River Basin Salinity Control Forum and based upon the Wasteload Analysis. As a method to minimize the discharge of TDS, gypsum is not to be used for rock dusting unless the permittee adequately demonstrates that its use will not significantly increase the TDS concentration. The salt pile is also to be contained on a lined pad or enclosed to prevent exposure to precipitation. The total TDS discharge of decant from outfall 001 is limited to 1 ton/day as in the previous permit. In the winter the TDS concentrations in outfall 001 are higher due to salt from deicing.

Outfall 002 TDS 1000 mg/L concentration limitation, while lower than the Wasteload Analysis is based on:

1. the release of high quality water historically (typically between 400 mg/L and 600 mg/L TDS),
2. consistency with Pacificorp Deer Creek's previous permit limits,
3. Best Professional Judgement (BPJ),
4. allowing the permittee to meet the TDS limit while not being allowed the opportunity to wantonly increase TDS loadings by the mine operations.

Oil and grease 10 mg/L limit and no visible sheen are based on the BPJ. This limit has been included in previous discharge permits for this and other coal mines.

Surface runoff of storm events less than or equal to the 10-year, 24-hour precipitation is limited to a settleable solids of 0.5 ml/L.

Based on effluent monitoring data and the existing treatment facility, the permittee is expected to be able to comply with the limitations.

Effluent Limitations

Parameter	30-Day Avg.	7-Day Avg.	Daily Min.	Daily Max.
TSS, mg/L	25	35	N.A.	70
Iron, mg/L	N.A.	N.A.	N.A.	1.0
Oil & Grease, mg/L	N.A.	N.A.	N.A.	10
pH, S.U.	N.A.	N.A.	6.5	9.0
TDS, (001)lbs/day	N.A.	N.A.	N.A.	2000
TDS, (002)mg/L	N.A.	N.A.	N.A.	1000

Based on 40 CFR 434, Subpart D., special provisions are applicable to the coal mining discharge points 001 and 002. Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period less than or equal to the 10 year 24 hour precipitation event (or snowmelt of equivalent volume) may comply with the following limitations instead of the otherwise applicable limitations:

Parameter	Effluent Limitations
Settleable Solids	0.5 ml/L
pH	6.5 to 9.0 S.U.

Any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 10 year 24 hour precipitation event (or snowmelt of equivalent volume) may comply with the following limitations instead of the otherwise applicable limitations:

Parameter	Effluent Limitations
pH	6.5 to 9.0 S.U.

The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event.

SELF-MONITORING AND REPORTING REQUIREMENTS

The permittee is required to monitor and report total flow, TSS, oil & grease, iron, TDS and pH each month. This reporting requirement will be submitted on Discharge Monitoring Report (DMR) forms. Reports are due 28 days after the end of the reporting period.

Self-Monitoring and Reporting Requirements for Influent

Parameter	Frequency	Sample Type	Units
Total Flow	Monthly	Measured	MGD
TSS	Monthly	Grab	mg/L
Iron	Monthly	Grab	mg/L
Oil & Grease	When sheen observed	Grab	mg/L
pH	Monthly	Grab	S.U.
TDS	Monthly	Grab	mg/L

STORMWATER REQUIREMENTS

This permit will include provisions of the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity as per the permittees request. Requirements for the pollution prevention plan were taken from the Coal Mining sector. The permittee shall prepare and implement a storm water pollution prevention plan within 270 days of the effective date of this permit.

PRETREATMENT REQUIREMENTS

This mine does not discharge process wastewater to any public sanitary sewer system. Any process wastewater that the facility may discharge to the sanitary sewer, either as direct discharge or as a

hauled waste, is subject to federal, state and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR section 403, the State Pretreatment Requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring).* Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3* and *Water Quality Standards, UAC R317-2-5* and *R317 -2-7.2.*

Since a reasonable potential for toxicity does not exist, biomonitoring will not be required. In the event of any unforeseen toxicity occurring at the facility the permit does contain a toxicity limitation-reopener provision.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by James W. Hawkes
EnvironmentalEngineer
Utah Division of Water Quality
Drafted July 25, 2002

Outfall

PACFICORP [illegible]ER CREEK

EFFLUENT VALU[illegible]OR 1999-2002

DATE	FLOW	(GPD)	PH (SU)		TSS (MGL)		SS (ML/L)	IRON	(MG/L)	(LBS/DAY)	TDS	(MG/L)		OIL & G
	30 DAY	**DAILY**	**6.5**	**9**	**25**	**70**	**0.5**	**REPORT**	**1**	**REPORT**	**2000 LBS/**	**REPORT**	**5000**	
	AVG	MAX	MIN	MX	30 DAY	DAILY MX	DAILY MX	30 DAY	D MX	30 DAY	DAILY MX	30 DAY	DAILY MX	(PASS/F)
07/31/99 1	0.05	0.05	7.96	7.96	11	11		0.2	0.2	555	555	555	555	0
08/31/99 1	0.07	0.07	7.8	7.8			< 0.4	0.2	0.2	0	0	571	571	0
09/30/99 1	0.1	0.1	7.42	7.42	**46**	**46**		0.3	0.3	431.68	431.68	453	453	0
10/31/99 1	0.11	0.11	7.58	8.2	**33**	**43**		0.35	0.4	367	367	363	385	0
11/30/99 1	0.11	0.11	7.05	7.05	< 5	< 5		0.2	0.2	0	0	585	585	0
12/31/99 1	0.07	0.07	7.31	7.31			< 0.4	0.9	0.9	623.6	623.6	1143	1143	0
01/31/00 1	11	31	7.22	8	89	89		< 0.6	0.6	0	1057	2838	3016	
02/29/00 1	0.028	0.028	7.74	7.74			< 0.4	0.2	0.2	0	0	673	673	0
03/31/00 1	0.039	0.08	7.9	7.9	6	6	< 0.4	0.3	0.3	**3407**	**3407**	**7714**	**7714**	0
04/30/00 1	0.07	0.11	7.6	7.9	**32**	**32**		0.15	0.2	0	0	0	559	0
05/31/00 1	0.08	0.08	7.84	7.84			< 0.4	0.5	0.5	943.7	943.7	1457	1457	0
06/30/00 1	0.06	0.08	7.66	7.68	36	36		0.2	0.2	228.4	228.4	483	483	0
07/31/00 1	0.01	0.01	7.92	7.92	22	22		0.2	0.2	141	141	1468	1468	0
08/31/00 1	0.02	0.03	8.41	8.41	19	19		0.2	0.2	0	0	504	504	0
09/30/00 1	0.048	0.054	8	8.07	16	16		0.2	0.2	411.81	411.81	794	909	0
10/31/00 1	0.09	0.09	8.55	8.55	**26**	**26**		0.1	0.1	340.55	340.55	447	447	0
11/30/00 1	0.1	0.1	7.09	8.09	16	16		< 0.1	< 0.1	875.3	875.3	983	987	0
12/31/00 1	0.07	0.07	7.94	7.94			< 0.4	0.1	0.1	904.5	904.5	1658	1658	0
01/31/01 1	0.046	0.046	8.34	8.34	15	15		0.1	0.1	355.08	355.08	912	912	0
02/28/01 1	0.054	0.054	8.04	8.04	15	15		0.2	0.2	0	0	0	603	0
03/31/01 1	0.01	0.01	8.37	8.37	8	8		0.2	0.2	1735	1735	2679	2679	0
04/30/01 1	0.12	0.12	8.1	8.28	14	14	< 0.4	0.4	0.7	0	1832.55	1472	1792	0
05/31/01 1	**0.07**	**?**	7.85	7.85	6	6	0	0.7	0.7	0	0	0	473	0
06/30/01 1	0.1	0.1	7.09	7.9	16	16		< 0.1	0.1	0	0	469	476	0
07/31/01 1	0.08	0.08	7.8	7.8	< 5	< 5		< 0.1	< 0.1	375	375	579	579	0
08/31/01 1	0.07	0.07	8.06	8.06	21	21		0.2	0.2	?	267.3	490	490	0
09/30/01 1	0.65	0.65	7.84	7.84	**30**	**30**		< 0.1	< 0.1	294.06	294.06	539	539	0
10/31/01 1	0.07	0.07	8.2	8.24	62	62		0.2	0.2	225.9	225.9	379	398	0
11/30/01 1	2.2	2.2	8.2	8.2			< 0.1	0.7	0.7	838	838	838	838	0
12/31/01 1	0.025	0.025	8.2	8.2	6	6		< 0.1	< 0.1	501	501	2424	2424	0
01/31/02 1	0.01	0.01	7.16	7.16	11	11		0.2	0.2	170.5	170.5	1419	1419	0
02/28/02 1	0.025	0.17	7.66	7.66	16	16		0.2	0	257.6	257.6	1211	1211	0
03/31/02 1	0.1	0.1	7.84	7.84	19	19		0.2	0.2	918	918	1205	1205	0
04/30/02 1	0.075	0.12	7.75	7.75	14	14		< 0.1	< 0.1	520	520	838	838	0
05/31/02 1	0.08	0.08	7.79	7.79	**46**	**46**		0.3	0.3		406	627	627	0
AVG	0.46794	1.063	8.0376	7.4892	19.147	19.44118	<	0	0.232353	0.2588	453.52	558.3097	1140.29	1207.9412	0

OUTFALL 2[redacted]																
DATE	FLOW	(GPD)	PH (SU)		TSS (MGL)	SS ([redacted])			OIL/GR	TOTAL	IRON (MG/L	TDS MG/L	[redacted]	OIL/G
	30 DAY	**DAILY**	**6.5**	**9**	**35**		**25**	**70**	**10**	**REPORT**	**1**	**800**	**10[redacted]**	**PASS/F**
	AVG	MAX	MIN	MX	MX WK LY	MIN	AVG	MAX	MX	AVG	MAX	QTLY AVG	MAX	MAX
07/31/99 1	1.86	3.64	6.74	6.74	< 5	< 5	< 5	< 5	C	0.8	0.8	0	555	0
08/31/99 1	1.65	3.31	7.2	7.2	11		11	11	C	**1.1**	**1.1**	571	571	0
09/30/99 1	2	3.5	7.04	7.04	**41.5**	13	13	13	9	0.6	0.6	561	556	0
10/31/99 1	2	3.12	7.1	7.17	33	< 6.0	< 6.5	7	C	0.85	1	363	385	0
11/30/99 1	2.1	3.2	6.93	6.93	< 5	< 5	< 5	< 5	C	0.6	0.6	0	585	0
12/31/99 1	1.6	2.9	7.37	7.37	17	17	17	17	C	0.9	0.9	565	516	0
01/31/00 1	0.82	1.95	7.25	7.4	**114**	**68**	**114**	**114**	C	**1.1**	**1.5**	0	575	0
02/29/00 1	0.9	2.5	7.32	7.32	6	6	6	6	9	0.5	0.5	0	673	0
03/31/00 1	1.07	3.3	7.3	7.3	< 5	< 5	< 5	< 5	9	0.6	0.6	602.6	560	0
04/30/00 1	1.27	3.27	7.1	7.26	12	9.5	12	12	9	0.85	1	0	559	0
05/31/00 1	2.2	3.6	7.21	7.21		24	24	24	C	0.9	0.9	0	696	0
06/30/00 1	3.36	3.63	7.02	7.02	< 5	< 5	< 5	< 5	9	1.2	1.2	604	557	0
07/31/00 1	2.9	3.3	7.18	7.18	< 5	< 5	< 5	< 5	9	0.6	0.6	0	514	0
08/31/00 1	2.8	3	7.28	7.28	17	17	17	17	9	0.8	0.8	0	504	0
09/30/00 1	2.55	2.79	7	7.11	22	13	22	22	C	0.65	0.7	583	731	0
10/31/00 1	2.4	2.5	7.63	7.63	12	12	12	12	B	0.5	0.5	679	679	0
11/30/00 1	1.98	2.25	7.3	7.38	10		10	10	9	0.5	0.5	0	686	0
12/31/00 1	1.9	2.3	7.37	7.37	< 5	< 5	< 5	< 5	C	0.5	0.5	614.6	479	0
01/31/01 1	1.8	2.2	7.59	7.59	114	< 5	< 5	< 5	C	**1.2**	**1.2**	0	575	0
02/28/01 1	1.78	2.21	7.35	7.44	11		10	11	9	**1.35**	**2.1**	0	603	0
03/31/01 1	1.8	1.8	7.73	7.73	15		15	15	9	1	1	487	490	0
04/30/01 1	1.8	2.4	7.5	7.53	< 5		< 5	< 5	9	< 2.5	0.4	0	457	0
05/31/01 1	2.43	2.8	7.03	7.03	7		7	7		0.1	0.1	0	473	0
06/30/01 1	2.6	3	7	7	12		12	12	9	0.5	0.5	469	476	0
07/31/01 1	2.8	3	6.96	6.96	< 5		< 5	< 5	C	0.5	0.5	0	477	0
08/31/01 1	2.8	2.9	7.03	7.03	5		5	5	C	0.5	0.5	436	436	0
09/30/01 1	2.62	2.9	7.02	7.02	10		10	10	C	0.8	0.8	484	539	0
10/31/01 1	2.5	2.6	7.1	7.1	11	11	11	11	C	0.5	0.5	0	450	0
11/30/01 1	2.35	2.63	7.23	7.23	8	8	8	8	C	0.7	0.7	461	461	0
12/31/01 1	2.27	2.27	7.5	7.5	< 5		< 5	< 5	C	0.4	0.4	449.33	437	0
01/31/02 1	2.1	2.2	7.32	7.32	5		< 5	< 5	C	0.5	0.5	470	470	0
02/28/02 1	2.4	2.6	7.31	7.31	11		11	11	C	0.3	0.3	465	465	0
03/31/02 1	1.1	1.7	7.28	7.28	< 5		< 5	< 5	9	0.3	0.3	493	544	0
04/30/02 1	0.9	1.15	7.07	7.07	5		5	5	L	0.5	0.5	450	450	0
05/31/02 1	0.95	1.1	6.92	6.92	< 5		< 5	< 5	C	0.2	0.2	0	447	0
	2.069412	2.750588	7.42	7.440294	14.98529	14.985	10.3529	10.5882	C	0.673529	0.7294118	288.45676	547.9706	0

Utah Department of Environmental Quality
Division of Water Quality
Results for Selected Characteristics, Stations and Date Range
8/28/2002

Station Name: DEER CK MINE 001 SED POND OUTFALL **Station Id:** 493047

Characteristic Name	Date	Field Set Desc.	Result	Unit	Value Type	Fraction	Activity Id.	Dectect/Quant Limts
Dissolved Solids								
	4/1/1998	4	1726	mg/l	F		9802282C	
	4/29/1998	4	1012	mg/l	F		9802967C	
	7/28/1998	4	1692	mg/l	F		9806398C	
	9/17/1998	4	742	mg/l	F		9808170C	
	10/28/1998	4	780	mg/l	F		9809902C	
	12/15/1998	4	714	mg/l	F		9811398C	
	2/9/1999	4	3652	mg/l	F		199901135C	
	4/13/1999	4	1946	mg/l	F		199902786C	
	8/5/1999	4	750	mg/l	F		199907047C	
	10/19/1999	4	388	mg/l	F		199909940C	
	1/25/2000	4	2552.	mg/l	F		200000527C	
	3/8/2000	4	7470.	mg/l	F		200001505C	
	4/25/2000	4	622.	mg/l	F		200003646C	
	9/20/2000	4	638.	mg/l	F		200008822C	
	11/8/2000	4	962.	mg/l	F		200010858C	
	6/27/2001	4	598.	mg/l	F		200104571C	
	8/22/2001	4	530.	mg/l	F		200106925C	
	10/31/2001	4	422.	mg/l	F		200109217C	
	12/13/2001	4	2422.	mg/l	F		200110551C	
w								
	1/21/1998	10	0.0	cfs	F		9800423	
	4/1/1998	4	30.0	g/min	F		9802282	
	4/29/1998	4	0.78	cfs	F		9802967	
	7/28/1998	4	*Non-detect	cfs	F		9806398	0.1
	9/17/1998	4	45.0	g/min	F		9808170	
	10/28/1998	4	97.4	cfs	F		9809902	
	12/15/1998	4	53.9	g/min	F		9811398	
	2/9/1999	4	0.39	cfs	F		199901135	
	4/13/1999	4	53.9	g/min	F		199902786	
	8/5/1999	4	49.6	g/min	F		199907047	
	10/19/1999	4	73.8	g/min	F		199909940	
	1/25/2000	4	0.034	cfs	F		4930474	
	3/8/2000	4	0.079	mgd	F		4930474	
	7/11/2000	10	0	cfs	F		49304710	
	9/20/2000	4	0.086	cfs	F		30302000	
	11/8/2000	4	0.196	cfs	F		45362000	
	4/25/2001	4	85.1	g/min	F		7352001	
	6/27/2001	4	79.3	g/min	F		18732001	
	8/22/2001	4	0.104	cfs	F		38612001	
	10/31/2001	4	49.6	g/min	F		53272001	
	12/13/2001	4	17.2	g/min	F		62442001	
	1/29/2002	4	10	gal/min	F		8742002	
	4/23/2002	4	0.16	cfs	F		17292002	
	7/17/2002	4	17.9	g/min	F		37822002	
Iron								
	4/1/1998	4	0.196	mg/l	F	Total	9802282C	

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Station Name: DEER CK MINE 001 SED POND OUTFALL **Station Id:** 493047

Characteristic Name	Date	Field Set Desc.	Result	Unit	Value Type	Fraction	Activity Id.	Dectect/Quant Limts
Iron								
	4/29/1998	4	0.225	mg/l	F	Total	9802967C	
	7/28/1998	4	0.0302	mg/l	F	Total	9806398C	
	9/17/1998	4	0.0536	mg/l	F	Total	9808170C	
	10/28/1998	4	0.148	mg/l	F	Total	9809902C	
	12/15/1998	4	0.123	mg/l	F	Total	9811398C	
	2/9/1999	4	0.0854	mg/l	F	Total	199901135C	
	4/13/1999	4	0.154	mg/l	F	Total	199902786C	
	8/5/1999	4	*Non-detect	mg/l	F	Total	199907047C	0.02
	10/19/1999	4	0.12	mg/l	F	Total	199909940C	
	3/8/2000	4	.111	mg/l	F	Total	200001505C	
	4/25/2000	4	*Non-detect	mg/l	F	Total	200003646C	.02
	9/20/2000	4	.0667	mg/l	F	Total	200008822C	
	11/8/2000	4	.0991	mg/l	F	Total	200010858C	
	6/27/2001	4	*Non-detect		F	Total	200104571C	.02
	8/22/2001	4	*Non-detect		F	Total	200106925C	.02
	10/31/2001	4	*Non-detect		F	Total	200109217C	.02
Specific conductance								
	4/1/1998	4	3094	umho/cm	F	Total	9802282	
	4/29/1998	4	1698	umho/cm	F	Total	9802967	
	7/28/1998	4	2918	umho/cm	F	Total	9806398	
	9/17/1998	4	1190	umho/cm	F	Total	9808170	
	10/28/1998	4	1294	umho/cm	F	Total	9809902	
	12/15/1998	4	1191	umho/cm	F	Total	9811398	
	2/9/1999	4	6411	umho/cm	F	Total	199901135	
	4/13/1999	4	3404	umho/cm	F	Total	199902786	
	8/5/1999	4	1307	umho/cm	F	Total	199907047	
	10/19/1999	4	696	umho/cm	F	Total	199909940	
	1/25/2000	4	4892	umho/cm	F		4930474	
	3/8/2000	4	13497	umho/cm	F		4930474	
	9/20/2000	4	1203	umho/cm	F		30302000	
	11/8/2000	4	1712	umho/cm	F		45362000	
	4/25/2001	4	1470	umho/cm	F		7352001	
	6/27/2001	4	1107	umho/cm	F		18732001	
	8/22/2001	4	835.8	umho/cm	F		38612001	
	10/31/2001	4	651.5	umho/cm	F		53272001	
	12/13/2001	4	4117	umho/cm	F		62442001	
	1/29/2002	4	2578	umho/cm	F		8742002	
	4/23/2002	4	1312	umho/cm	F		17292002	
	6/6/2002	4	968.7	umho/cm	F		26502002	
	7/17/2002	4	1226	umho/cm	F		37822002	
Total Suspended Solids (TSS)								
	4/1/1998	4	18.8	mg/l	F		9802282C	
	4/29/1998	4	20.0	mg/l	F		9802967C	
	7/28/1998	4	17.6	mg/l	F		9806398C	
	9/17/1998	4	5.6	mg/l	F		9808170C	
	10/28/1998	4	18.4	mg/l	F		9809902C	

Station Name: DEER CK MINE 001 SED POND OUTFALL **Station Id:** 493047

Characteristic Name	Date	Field Set Desc.	Result	Unit	Value Type	Fraction	Activity Id.	Dectect/Quant Limts
Total Suspended Solids (TSS)								
	12/15/1998	4	29.6	mg/l	F		9811398C	
	2/9/1999	4	5.2	mg/l	F		199901135C	
	4/13/1999	4	16.0	mg/l	F		199902786C	
	8/5/1999	4	28.4	mg/l	F		199907047C	
	10/19/1999	4	33.3	mg/l	F		199909940C	
	1/25/2000	4	4.	mg/l	F		200000527C	
	3/8/2000	4	6.	mg/l	F		200001505C	
	4/25/2000	4	33.3	mg/l	F		200003646C	
	9/20/2000	4	12.	mg/l	F		200008822C	
	11/8/2000	4	18.	mg/l	F		200010858C	
	6/27/2001	4	12.	mg/l	F		200104571C	
	8/22/2001	4	*Non-detect		F		200106925C	4.
	10/31/2001	4	48.	mg/l	F		200109217C	
	12/13/2001	4	*Non-detect		F		200110551C	4.
pH								
	4/1/1998	4	8.05	None	F	Total	9802282	
	4/29/1998	4	8.3	None	F	Total	9802967	
	7/28/1998	4	8.22	None	F	Total	9806398	
	9/17/1998	4	8.3	None	F	Total	9808170	
	10/28/1998	4	8.2	None	F	Total	9809902	
	12/15/1998	4	8.4	None	F	Total	9811398	
	2/9/1999	4	7.99	None	F	Total	199901135	
	4/13/1999	4	8.93	None	F	Total	199902786	
	8/5/1999	4	7.8	None	F	Total	199907047	
	10/19/1999	4	8.2	None	F	Total	199909940	
	1/25/2000	4	7.98	None	F	Total	4930474	
	3/8/2000	4	7.87	None	F	Total	4930474	
	9/20/2000	4	8.03	None	F	Total	30302000	
	11/8/2000	4	7.90	None	F	Total	45362000	
	4/25/2001	4	8.12	None	F	Total	7352001	
	6/27/2001	4	7.9	None	F	Total	18732001	
	8/22/2001	4	8.06	None	F	Total	38612001	
	10/31/2001	4	8.22	None	F	Total	53272001	
	12/13/2001	4	8.19	None	F	Total	62442001	
	1/29/2002	4	7.65	None	F	Total	8742002	
	4/23/2002	4	8.06	None	F	Total	17292002	
	6/6/2002	4	8.20	None	F	Total	26502002	
	7/17/2002	4	8.1	None	F	Total	37822002	

Station Name: DEER CK MINE 002 OUTFALL **Station Id:** 493048

Characteristic Name	Date	Field Set Desc.	Result	Unit	Value Type	Fraction	Activity Id.	Dectect/Quant Limts
lved Solids								
	4/1/1998	4	634	mg/l	F		9802283C	
	4/29/1998	4	760	mg/l	F		9802969C	
	7/28/1998	4	672	mg/l	F		9806399C	

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Station Name: DEER CK MINE 002 OUTFALL **Station Id:** 493048

Characteristic Name	Date	Field Set Desc.	Result	Unit	Value Type	Fraction	Activity Id.	Dectect/Quant Limts
Dissolved Solids								
	9/17/1998	4	632	mg/l	F		9808171C	
	12/15/1998	4	568	mg/l	F		9811399C	
	2/9/1999	4	658	mg/l	F		199901136C	
	4/13/1999	4	542	mg/l	F		199902787C	
	8/5/1999	4	584	mg/l	F		199907048C	
	10/19/1999	4	546	mg/l	F		199909941C	
	1/25/2000	4	568.	mg/l	F		200000528C	
	3/8/2000	4	574.	mg/l	F		200001506C	
	4/25/2000	4	528.	mg/l	F		200003647C	
	9/20/2000	4	472.	mg/l	F		200008823C	
	11/8/2000	4	674.	mg/l	F		200010859C	
	8/22/2001	4	444.	mg/l	F		200106926C	
	12/13/2001	4	478.	mg/l	F		200110552C	
	3/12/2002	4	2666.	mg/l	F		200201719C	
Flow								
	1/21/1998	10	0.0	cfs	F		9800424	
	4/1/1998	4	16.3	g/min	F		9802283	
	4/29/1998	4	1725.0	g/min	F		9802969	
	9/17/1998	4	2431.0	g/min	F		9808171	
	10/28/1998	10	0.0	cfs	F		9809962	
	12/15/1998	4	1.67	mgd	F	Total	9811399	
	2/9/1999	4	1980.0	g/min	F		199901136	
	4/13/1999	4	1804.0	g/min	F		199902787	
	8/5/1999	4	2598.0	g/min	F		199907048	
	10/19/1999	4	1074.0	g/min	F		199909941	
	1/25/2000	4	750	gal/min	F		4930484	
	3/8/2000	4	600	g/min	F		4930484	
	4/25/2000	4	600	cfs	F		4930484	
	9/20/2000	4	1738	g/min	F		30312000	
	11/8/2000	4	1543	g/min	F		45372000	
	4/25/2001	4	1601	g/min	F		7362001	
	6/28/2001	10	0	cfs	F		18742001	
	8/22/2001	4	1953	g/min	F		38622001	
	10/31/2001	10	0	cfs	F		53282001	
	10/31/2001	10	0	cfs	F		53312001	
	12/13/2001	4	1500	g/min	F		62452001	
	1/29/2002	4	1425	g/min	F		8752002	
	4/23/2002	4	723	g/min	F		17302002	
	7/17/2002	4	605.5	g/min	F		37832002	
Iron								
	4/1/1998	4	0.715	mg/l	F	Total	9802283C	
	4/29/1998	4	0.684	mg/l	F	Total	9802969C	
	7/28/1998	4	0.118	mg/l	F	Total	9806399C	
	9/17/1998	4	0.613	mg/l	F	Total	9808171C	
	12/15/1998	4	0.738	mg/l	F	Total	9811399C	
	2/9/1999	4	0.767	mg/l	F	Total	199901136C	

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Station Name: DEER CK MINE 002 OUTFALL **Station Id:** 493048

Characteristic Name	Date	Field Set Desc.	Result	Unit	Value Type	Fraction	Activity Id.	Dectect/Quant Limts
Iron								
	4/13/1999	4	0.617	mg/l	F	Total	199902787C	
	8/5/1999	4	0.393	mg/l	F	Total	199907048C	
	10/19/1999	4	0.027	mg/l	F	Total	199909941C	
	3/8/2000	4	*Non-detect	mg/l	F	Total	200001506C	.02
	4/25/2000	4	*Non-detect	mg/l	F	Total	200003647C	.02
	9/20/2000	4	.811	mg/l	F	Total	200008823C	
	11/8/2000	4	.477	mg/l	F	Total	200010859C	
	8/22/2001	4	.0973	mg/l	F	Total	200106926C	
Oil and Grease								
	9/17/1998	4	*Non-detect	mg/l	F	Total	9808171C	5.0
Specific conductance								
	4/1/1998	4	961	umho/cm	F	Total	9802283	
	4/29/1998	4	1205	umho/cm	F	Total	9802969	
	7/28/1998	4	1027	umho/cm	F	Total	9806399	
	9/17/1998	4	885	umho/cm	F	Total	9808171	
	12/15/1998	4	852	umho/cm	F	Total	9811399	
	2/9/1999	4	1007	umho/cm	F	Total	199901136	
	4/13/1999	4	877	umho/cm	F	Total	199902787	
	8/5/1999	4	948	umho/cm	F	Total	199907048	
	10/19/1999	4	850	umho/cm	F	Total	199909941	
	1/25/2000	4	963	umho/cm	F		4930484	
	3/8/2000	4	906	umho/cm	F		4930484	
	4/25/2000	4	925	umho/cm	F		4930484	
	9/20/2000	4	839	umho/cm	F		30312000	
	11/8/2000	4	947	umho/cm	F		45372000	
	4/25/2001	4	694	umho/cm	F		7362001	
	8/22/2001	4	686.2	umho/cm	F		38622001	
	12/13/2001	4	713.7	umho/cm	F		62452001	
	1/29/2002	4	1360	umho/cm	F		8752002	
	4/23/2002	4	762	umho/cm	F		17302002	
	6/6/2002	4	695.9	umho/cm	F		26512002	
	7/17/2002	4	747	umho/cm	F		37832002	
Total Suspended Solids (TSS)								
	4/1/1998	4	10.8	mg/l	F		9802283C	
	4/29/1998	4	11.2	mg/l	F		9802969C	
	7/28/1998	4	10.4	mg/l	F		9806399C	
	9/17/1998	4	9.2	mg/l	F		9808171C	
	12/15/1998	4	24.4	mg/l	F		9811399C	
	2/9/1999	4	5.6	mg/l	F		199901136C	
	4/13/1999	4	12.4	mg/l	F		199902787C	
	8/5/1999	4	9.6	mg/l	F		199907048C	
	10/19/1999	4	5.6	mg/l	F		199909941C	
	1/25/2000	4	112.	mg/l	F		200000528C	
	3/8/2000	4	0	mg/l	F		200001506C	4.
	4/25/2000	4	0	mg/l	F		200003647C	4.
	9/20/2000	4	0	mg/l	F		200008823C	4.

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Station Name: DEER CK MINE 002 OUTFALL **Station Id:** 493048

Characteristic Name	Date	Field Set Desc.	Result	Unit	Value Type	Fraction	Activity Id.	Dectect/Quant Limts
Total Suspended Solids (TSS)								
	11/8/2000	4	8.4	mg/l	F		200010859C	
	8/22/2001	4	*Non-detect		F		200106926C	4.
	12/13/2001	4	*Non-detect		F		200110552C	4.
	3/12/2002	4	838.	mg/l	F		200201719C	
pH								
	4/1/1998	4	7.17	None	F	Total	9802283	
	4/29/1998	4	7.5	None	F	Total	9802969	
	7/28/1998	4	8.0	None	F	Total	9806399	
	9/17/1998	4	7.6	None	F	Total	9808171	
	12/15/1998	4	7.5	None	F	Total	9811399	
	2/9/1999	4	7.58	None	F	Total	199901136	
	4/13/1999	4	7.4	None	F	Total	199902787	
	8/5/1999	4	7.2	None	F	Total	199907048	
	10/19/1999	4	7.1	None	F	Total	199909941	
	1/25/2000	4	7.39	None	F	Total	4930484	
	3/8/2000	4	7.32	None	F	Total	4930484	
	4/25/2000	4	7.34	None	F	Total	4930484	
	9/20/2000	4	7.04	None	F	Total	30312000	
	11/8/2000	4	7.28	None	F	Total	45372000	
	4/25/2001	4	7.45	None	F	Total	7362001	
	8/22/2001	4	7.03	None	F	Total	38622001	
	12/13/2001	4	7.53	None	F	Total	62452001	
	1/29/2002	4	7.44	None	F	Total	8752002	
	4/23/2002	4	7.24	None	F	Total	17302002	
	6/6/2002	4	7.18	None	F	Total	26512002	
	7/17/2002	4	7.06	None	F	Total	37832002	

Wasteload Analysis - Total Maximum Daily Load (TMDL)
Addendum: Statement of Basis

7/1/2602
11:00 AM

ilities: **Pacific Corp - Deer Creek Mine Discharge** **UPDES No: UT- 0023604**
charging to: **Deer Creek -> Huntington Creek**

I. Introduction

Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses [R317-2-8, UAC]. Projected concentrations are compared to numeric water quality standards to determine acceptability. The anti-degradation policy and procedures are also considered. The primary in-stream parameters of concern may include metals (as a function of hardness), total dissolved solids (TDS), total residual chlorine (TRC), un-ionized ammonia (as a function of pH and temperature, measured and evaluated interms of total ammonia), and dissolved oxygen.

Mathematical water quality modeling is employed to determine stream quality response to point source discharges. Models aid in the effort of anticipating stream quality at future effluent flows at critical environmental conditions (e.g., low stream flow, high temperature, high pH, etc).

The numeric criteria in this wasteload analysis may always be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

II. Receiving Water and Stream Classification

Deer Creek -> Huntington Creek	1C, 2B, 3A, 4
Antidegradation Segment Classification	N/A

Numeric Stream Standards for Protection of Aquatic Wildlife

Total Ammonia (TNH3) Function of Temperature and pH

Summer	Chronic	0.84	mg/l as N (4 Day Average)
	Acute	3.66	mg/l as N (1 Hour Average)
Fall/Spring	Chronic	1.05	mg/l as N (4 Day Average)
	Acute	4.61	mg/l as N (1 Hour Average)
Winter	Chronic	1.33	mg/l as N (4 Day Average)
	Acute	5.85	mg/l as N (1 Hour Average)

Chronic Total Residual Chlorine (TRC)
0.019 mg/l (4 Day Average)
0.011 mg/l (1 Hour Average)

Chronic Dissolved Oxygen (DO)
6.50 mg/l (30 Day Average)
5.00 mg/l (7Day Average)
4.00 mg/l (1 Day Average

Maximum Total Dissolved Solids
1200 mg/l
723 mg/l [Salinity Forum - Parker Dam]

Maximum Boron
750 mg/l

Acute and Chronic Heavy Metals (Dissolved)

meter	4 Day Average (Chronic) Standard Concentration	Load*	1 Hour Average (Acute) Standard Concentration		Load*
Aluminum	87.00 ug/l**	0.725 lbs/day	750.00	ug/l	6.254 lbs/day

Arsenic	190.00 ug/l	1.584 lbs/day	360.00	ug/l	3.002 lbs/day
Cadmium	2.69 ug/l	0.022 lbs/day	13.54	ug/l	0.113 lbs/day
Chromium III	508.97 ug/l	4.244 lbs/day	4270.10	ug/l	35.605 lbs/day
ChromiumVI	11.00 ug/l	0.092 lbs/day	16.00	ug/l	0.133 lbs/day
Copper	30.23 ug/l	0.252 lbs/day	49.90	ug/l	0.416 lbs/day
Iron			1000.00	ug/l	8.338 lbs/day
Lead	12.88 ug/l	0.107 lbs/day	330.60	ug/l	2.757 lbs/day
Mercury	0.0120 ug/l	0.000 lbs/day	2.40	ug/l	0.020 lbs/day
Nickel	399.37 ug/l	3.330 lbs/day	3592.47	ug/l	29.955 lbs/day
Selenium	5.00 ug/l	0.042 lbs/day	20.00	ug/l	0.167 lbs/day
Silver	ug/l	lbs/day	26.86	ug/l	0.224 lbs/day
Zinc	268.87 ug/l	2.242 lbs/day	296.85	ug/l	2.475 lbs/day

* Allowed below discharge

**Chronic Aluminum standard applies only to waters with a pH < 7.0 and a Hardness < 50 mg/l as CaCO3

Metals Standards Based upon a Hardness of 300 mg/l as CaCO3

Organics [Pesticides]

Parameter	4 Day Average (Chronic) Standard Concentration	Load*	1 Hour Average (Acute) Standard Concentration		Load*
Aldrin			1.500	ug/l	0.013 lbs/day
Chlordane	0.0043 ug/l	0.047 lbs/day	1.200	ug/l	0.010 lbs/day
DDT, DDE	0.001 ug/l	0.011 lbs/day	0.550	ug/l	0.005 lbs/day
Dieldrin	0.0019 ug/l	0.021 lbs/day	1.250	ug/l	0.010 lbs/day
Endosulfan	0.056 ug/l	0.618 lbs/day	0.110	ug/l	0.001 lbs/day
Endrin	0.0023 ug/l	0.025 lbs/day	0.090	ug/l	0.001 lbs/day
Guthion			0.010	ug/l	0.000 lbs/day
Heptachlor	0.0038 ug/l	0.042 lbs/day	0.260	ug/l	0.002 lbs/day
Lindane	0.08 ug/l	0.883 lbs/day	1.000	ug/l	0.008 lbs/day
Methoxychlor			0.030	ug/l	0.000 lbs/day
Mirex			0.010	ug/l	0.000 lbs/day
Parathion			0.040	ug/l	0.000 lbs/day
PCB's	0.014 ug/l	0.154 lbs/day	2.000	ug/l	0.017 lbs/day
Pentachlorophenol	13.00 ug/l	143.433 lbs/day	20.000	ug/l	0.167 lbs/day
Toxephene	0.0002 ug/l	0.002 lbs/day	0.730	ug/l	0.006 lbs/day

IV. Numeric Stream Standards for Protection of Agriculture

	4 Day Average (Chronic) Standard Concentration	Load*	1 Hour Average (Acute) Standard Concentration	Load*
TDS			1200.0 mg/l	5.00 tons/day
Arsenic			100.0 ug/l	lbs/day
Boron			750.0 ug/l	3.13 lbs/day
Cadmium			10.0 ug/l	0.04 lbs/day
Chromium			100.0 ug/l	lbs/day
Copper			200.0 ug/l	lbs/day
Lead			100.0 ug/l	lbs/day
Selenium			50.0 ug/l	lbs/day

V. Numeric Stream Standards for Protection of Human Health (Class 1C Waters)

Metals	4 Day Average (Chronic) Standard Concentration	Load*	1 Hour Average (Acute) Standard Concentration	Load*
Arsenic			50 ug/l	0.552 lbs/day
Barium			1000 ug/l	11.033 lbs/day
Cadmium			10 ug/l	0.110 lbs/day

Chromium	50 ug/l	0.552 lbs/day
Lead	50 ug/l	0.552 lbs/day
Mercury	2 ug/l	0.022 lbs/day
Selenium	10 ug/l	0.110 lbs/day
Silver	50 ug/l	0.552 lbs/day
Fluoride (3)	1.4 ug/l	0.015 lbs/day
to	2.4 ug/l	0.026 lbs/day
Nitrates as N	10 ug/l	0.110 lbs/day
Chlorophenoxy Herbicides		
2,4-D	100 ug/l	1.103 lbs/day
2,4,5-TP	10 ug/l	0.110 lbs/day
Endrin	0.2 ug/l	0.002 lbs/day
rocyclohexane (Lindane)	4 ug/l	0.044 lbs/day
Methoxychlor	100 ug/l	1.103 lbs/day
Toxaphene	5 ug/l	0.055 lbs/day

VI. Numeric Stream Standards the Protection of Human Health from Water & Fish Consumption [Toxics]

	Maximum Conc., ug/l - Acute Standards			
	Class 1C		Class 3A, 3B	
Toxic Organics	[2 Liters/Day for 70 Kg Person over 70 Yr.]		[6.5 g for 70 Kg Person over 70 Yr.]	
Acenaphthene	1200.00 ug/l	13.24 lbs/day	2700 ug/l	29.79 lbs/day
Acrolein	320.00 ug/l	3.53 lbs/day	780 ug/l	8.61 lbs/day
Acrylonitrile	0.06 ug/l	0.00 lbs/day	0.66 ug/l	0.01 lbs/day
Benzene	1.20 ug/l	0.01 lbs/day	71 ug/l	0.78 lbs/day
Benzidine	0.00012 ug/l	0.00 lbs/day	0.00054 ug/l	0.00 lbs/day
bon tetrachloride	0.25 ug/l	0.00 lbs/day	4.4 ug/l	0.05 lbs/day
robenzene	680.00 ug/l	7.50 lbs/day	21000 ug/l	231.70 lbs/day
1,2,4-Trichlorobenzene				
Hexachlorobenzene	0.00075 ug/l	0.00 lbs/day	0.00077 ug/l	0.00 lbs/day
1,2-Dichloroethane	0.38 ug/l	0.00 lbs/day	99 ug/l	1.09 lbs/day
1,1,1-Trichloroethane				
Hexachloroethane	1.90 ug/l	0.02 lbs/day	8.9 ug/l	0.10 lbs/day
1,1-Dichloroethane				
1,1,2-Trichloroethane	0.61 ug/l	0.01 lbs/day	42 ug/l	0.46 lbs/day
1,1,2,2-Tetrachloroethan	0.17 ug/l	0.00 lbs/day	11 ug/l	0.12 lbs/day
Chloroethane			ug/l	lbs/day
Bis(2-chloroethyl) ether	0.03 ug/l	0.00 lbs/day	1.4 ug/l	0.02 lbs/day
2-Chloroethyl vinyl ether	ug/l	lbs/day	ug/l	lbs/day
2-Chloronaphthalene	1700.00 ug/l	18.76 lbs/day	4300 ug/l	47.44 lbs/day
2,4,6-Trichlorophenol	2.10 ug/l	0.02 lbs/day	6.5 ug/l	0.07 lbs/day
p-Chloro-m-cresol			ug/l	lbs/day
Chloroform (HM)	5.70 ug/l	0.06 lbs/day	470 ug/l	5.19 lbs/day
2-Chlorophenol	120.00 ug/l	1.32 lbs/day	400 ug/l	4.41 lbs/day
1,2-Dichlorobenzene	2700.00 ug/l	29.79 lbs/day	17000 ug/l	187.57 lbs/day
1,3-Dichlorobenzene	400.00 ug/l	4.41 lbs/day	2600 ug/l	28.69 lbs/day
1,4-Dichlorobenzene	400.00 ug/l	4.41 lbs/day	2600 ug/l	28.69 lbs/day
3,3'-Dichlorobenzidine	0.04 ug/l	0.00 lbs/day	0.077 ug/l	0.00 lbs/day
1,1-Dichloroethylene	0.06 ug/l	0.00 lbs/day	3.2 ug/l	0.04 lbs/day
1,2-trans-Dichloroethyler	700.00 ug/l	7.72 lbs/day	ug/l	lbs/day
2,4-Dichlorophenol	93.00 ug/l	1.03 lbs/day	790 ug/l	8.72 lbs/day
2-Dichloropropane	0.52 ug/l	0.01 lbs/day	39 ug/l	0.43 lbs/day
Dichloropropylene	10.00 ug/l	0.11 lbs/day	1700 ug/l	18.76 lbs/day
2,4-Dimethylphenol	540.00 ug/l	5.96 lbs/day	2300 ug/l	25.38 lbs/day
2,4-Dinitrotoluene	0.11 ug/l	0.00 lbs/day	9.1 ug/l	0.10 lbs/day

2,6-Dinitrotoluene	ug/l	lbs/day	ug/l	lbs/day
1,2-Diphenylhydrazine	0.04 ug/l	0.00 lbs/day	0.54 ug/l	0.01 lbs/day
Ethylbenzene	3100.00 ug/l	34.20 lbs/day	29000 ug/l	319.97 lbs/day
[redacted]anthene	300.00 ug/l	3.31 lbs/day	370 ug/l	4.08 lbs/day
4-Chlorophenyl phenyl ether				
4-Bromophenyl phenyl ether				
Bis(2-chloroisopropyl) etl	1400.00 ug/l	15.45 lbs/day	170000 ug/l	1875.67 lbs/day
Bis(2-chloroethoxy) meth	ug/l	lbs/day	ug/l	lbs/day
Methylene chloride (HM)	4.70 ug/l	0.05 lbs/day	1600 ug/l	17.65 lbs/day
Methyl chloride (HM)	ug/l	lbs/day	ug/l	lbs/day
Methyl bromide (HM)	ug/l	lbs/day	ug/l	lbs/day
Bromoform (HM)	4.30 ug/l	0.05 lbs/day	360 ug/l	3.97 lbs/day
Dichlorobromomethane(I	0.27 ug/l	0.00 lbs/day	22 ug/l	0.24 lbs/day
Chlorodibromomethane (	0.41 ug/l	0.00 lbs/day	34 ug/l	0.38 lbs/day
Hexachlorobutadiene(c)	0.44 ug/l	0.00 lbs/day	50 ug/l	0.55 lbs/day
Hexachlorocyclopentadie	240.00 ug/l	2.65 lbs/day	17000 ug/l	187.57 lbs/day
Isophorone	8.40 ug/l	0.09 lbs/day	600 ug/l	6.62 lbs/day
Naphthalene				
Nitrobenzene	17.00 ug/l	0.19 lbs/day	1900 ug/l	20.96 lbs/day
2-Nitrophenol	ug/l	lbs/day	ug/l	lbs/day
4-Nitrophenol	ug/l	lbs/day	ug/l	lbs/day
2,4-Dinitrophenol	70.00 ug/l	0.77 lbs/day	14000 ug/l	154.47 lbs/day
4,6-Dinitro-o-cresol	13.00 ug/l	0.14 lbs/day	765 ug/l	8.44 lbs/day
N-Nitrosodimethylamine	0.00069 ug/l	0.00 lbs/day	8.1 ug/l	0.09 lbs/day
N-Nitrosodiphenylamine	5.00 ug/l	0.06 lbs/day	16 ug/l	0.18 lbs/day
N-Nitrosodi-n-propylamin	0.01 ug/l	0.00 lbs/day	1.4 ug/l	0.02 lbs/day
Pentachlorophenol	0.28 ug/l	0.00 lbs/day	8.2 ug/l	0.09 lbs/day
Phenol	2.10E+04 ug/l	2.32E+02 lbs/day	4.6E+06 ug/l	5.08E+04 lbs/day
[redacted]-ethylhexyl)phthalat	1.80 ug/l	0.02 lbs/day	5.9 ug/l	0.07 lbs/day
[redacted]l benzyl phthalate	3000.00 ug/l	33.10 lbs/day	5200 ug/l	57.37 lbs/day
Di-n-butyl phthalate	2700.00 ug/l	29.79 lbs/day	12000 ug/l	132.40 lbs/day
Di-n-octyl phthlate				
Diethyl phthalate	23000.00 ug/l	253.77 lbs/day	120000 ug/l	1324.00 lbs/day
Dimethyl phthlate	3.13E+05 ug/l	3.45E+03 lbs/day	2.9E+06 ug/l	3.20E+04 lbs/day
Benzo(a)anthracene (PA	0.0028 ug/l	0.00 lbs/day	0.031 ug/l	0.00 lbs/day
Benzo(a)pyrene (PAH)	0.0028 ug/l	0.00 lbs/day	0.031 ug/l	0.00 lbs/day
Benzo(b)fluoranthene (P.	0.0028 ug/l	0.00 lbs/day	0.031 ug/l	0.00 lbs/day
Benzo(k)fluoranthene (P.	0.0028 ug/l	0.00 lbs/day	0.031 ug/l	0.00 lbs/day
Chrysene (PAH)	0.0028 ug/l	0.00 lbs/day	0.031 ug/l	0.00 lbs/day
Acenaphthylene (PAH)				
Anthracene (PAH)	9600.00 ug/l	105.92 lbs/day	ug/l	lbs/day
Dibenzo(a,h)anthracene	0.0028 ug/l	0.00 lbs/day	0.031 ug/l	0.00 lbs/day
Indeno(1,2,3-cd)pyrene (	0.0028 ug/l	0.00 lbs/day	0.031 ug/l	0.00 lbs/day
Pyrene (PAH)	960.00 ug/l	10.59 lbs/day	11000 ug/l	121.37 lbs/day
Tetrachloroethylene	0.80 ug/l	0.01 lbs/day	8.9 ug/l	0.10 lbs/day
Toluene	6800.00 ug/l	75.03 lbs/day	200000 ug/l	2206.67 lbs/day
Trichloroethylene	2.70 ug/l	0.03 lbs/day	81 ug/l	0.89 lbs/day
Vinyl chloride	2.00 ug/l	0.02 lbs/day	525 ug/l	5.79 lbs/day
				lbs/day
				lbs/day
Pesticides				
Aldrin	0.0001 ug/l	0.00 lbs/day	0.00014 ug/l	0.00 lbs/day
Dieldrin	0.0001 ug/l	0.00 lbs/day	0.00014 ug/l	0.00 lbs/day
Chlordane	0.0006 ug/l	0.00 lbs/day	0.00059 ug/l	0.00 lbs/day
[redacted]'-DDT	0.0006 ug/l	0.00 lbs/day	0.00059 ug/l	0.00 lbs/day
[redacted]DDE	0.0006 ug/l	0.00 lbs/day	0.00059 ug/l	0.00 lbs/day
4,4'-DDD	0.0008 ug/l	0.00 lbs/day	0.00084 ug/l	0.00 lbs/day
alpha-Endosulfan	0.9300 ug/l	0.01 lbs/day	2 ug/l	0.02 lbs/day

beta-Endosulfan	0.9300 ug/l	0.01 lbs/day	2 ug/l	0.02 lbs/day
Endosulfan sulfate	0.9300 ug/l	0.01 lbs/day	2 ug/l	0.02 lbs/day
Endrin	0.7600 ug/l	0.01 lbs/day	0.81 ug/l	0.01 lbs/day
[redacted]n aldehyde	0.7600 ug/l	0.01 lbs/day	0.81 ug/l	0.01 lbs/day
[redacted]tachlor	0.0002 ug/l	0.00 lbs/day	0.00021 ug/l	0.00 lbs/day
Heptachlor epoxide				
PCB's				
PCB 1242 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.000045 ug/l	0.00 lbs/day
PCB-1254 (Arochlor 125	0.000044 ug/l	0.00 lbs/day	0.000045 ug/l	0.00 lbs/day
PCB-1221 (Arochlor 122	0.000044 ug/l	0.00 lbs/day	0.000045 ug/l	0.00 lbs/day
PCB-1232 (Arochlor 123	0.000044 ug/l	0.00 lbs/day	0.000045 ug/l	0.00 lbs/day
PCB-1248 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.000045 ug/l	0.00 lbs/day
PCB-1260 (Arochlor 126	0.000044 ug/l	0.00 lbs/day	0.000045 ug/l	0.00 lbs/day
PCB-1016 (Arochlor 101	0.000044 ug/l	0.00 lbs/day	0.000045 ug/l	0.00 lbs/day
Pesticide				
Toxaphene	0.000750 ug/l	0.00	ug/l	lbs/day
Dioxin				
Dioxin (2,3,7,8-TCDD)	1.30E-08 ug/l	0.00 lbs/day	1.40E-08	0.00
Metals				
Antimony	14.0 ug/l	0.15 lbs/day		
Arsenic	50.0 ug/l	0.55 lbs/day	4300.00 ug/l	47.44 lbs/day
Asbestos	7.00E+06 ug/l	7.72E+04 lbs/day		
Beryllium				
[redacted]mium				
[redacted]mium (III)				
Chromium (VI)				
Copper				
Cyanide	1.30E+03 ug/l	14.34 lbs/day	2.2E+05 ug/l	2427.33 lbs/day
Lead	700.0 ug/l	7.72 lbs/day		
Mercury			0.15 ug/l	0.00 lbs/day
Nickel			4600.00 ug/l	50.75 lbs/day
Selenium	0.1 ug/l	0.00 lbs/day		
Silver	610.0 ug/l	6.73 lbs/day		
Thallium			6.30 ug/l	0.07 lbs/day
Zinc				

Colorado River Salinity Control Forum [Applies to Discharges in the Colorado River Basin Only]

The policies of the CRSCF are referenced and included in the Utah Water Quality Standards.

1. There shall be no discharge of salt whenever practical.
2. If not practical, the no salt discharge requirement can be waived by the permit issuing authority in those cases where the discharged salt load reaching the main stem of the Colorado River is less than one ton per day or 350 tons per year.
3. If the permitee cannot attain one ton per day or less, the owner/permitee must complete an intercepted ground water study.
4. If the permittee cannot attain one ton per day or less, the owner/permittee has the option of doing an economic analysis study.
5. Number(s) 3 and/or 4 above could provide the information to justify allowing a greater salt loading.
6. If the TDS/salt concentration is below 500 mg/l, there will be no tonnage limitations in the permit.
7. Pollution trading/offset concepts may be permitted.
8. If there is a concentration difference of 400 mg/l or less between a drinking water source for a municipal sewage treatment facility and its effluent, there will be no tonnage limitations in the permit.
9. The tonnage restrictions which may be imposed upon the owner/permittee are determined by the

permit writer.

There are additional standards that apply to this receiving water, but were not considered in this modeling/waste load allocation analysis.

VII. Mathematical Modeling of Stream Quality

Model configuration was accomplished utilizing standard modeling procedures. Data points were plotted and coefficients adjusted as required to match observed data as closely as possible.

The modeling approach used in this analysis included one or a combination of the following models.

(1) The Utah River Model, Utah Division of Water Quality, 1992. Based upon STREAMDO IV (Region VIII) and Supplemental Ammonia Toxicity Models; EPA Region VIII, Sept. 1990 and QUAL2E (EPA, Athens, GA).

(2) Utah Ammonia/Chlorine Model, Utah Division of Water Quality, 1992.

(3) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

Coefficients used in the model were based, in part, upon the following references:

(1) Rates, Constants, and Kinetics Formulations in Surface Water Quality Modeling. Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Athens Georgia. EPA/600/3-85/040 June 1985.

(2) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

VIII. Modeling Information

The required information for the model may include the following information for both the upstream conditions at low flow and the effluent conditions:

Flow, Q, (cfs or MGD)	D.O. mg/l
Temperature, Deg. C.	Total Residual Chlorine (TRC), mg/l
pH	Total NH3-N, mg/l
BOD5, mg/l	Total Dissolved Solids (TDS), mg/l
Metals, ug/l	Toxic Organics of Concern, ug/l

Other Conditions

In addition to the upstream and effluent conditions, the models require a variety of physical and biological coefficients and other technical information. In the process of actually establishing the permit limits for an effluent, values are used based upon the available data, model calibration, literature values, site visits and best professional judgement.

Model Inputs

The following is upstream and discharge information that was utilized as inputs for the analysis.

Upstream Information

	Stream Flow	Temp.	pH	T-NH3	BOD	DO	TRC	TDS
	cfs	Deg. C		mg/l as N	mg/l	mg/l	mg/l	mg/l
Summer	0.5	17.0	8.2	0.10	0.50	6.48		637.6
Fall/Spring	0.5	12.0	8.1	0.10	0.50	---		637.6
Winter	0.5	4.0	8.0	0.10	0.50	---		637.6

Dissolved Metals	Al	As	Cd	CrIII	CrVI	Copper	Fe	Pb
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
All Seasons	1.59*	0.53*	0.053*	0.53*	2.65*	0.53*	0.83*	0.53*

	Hg	Ni	Se	Ag	Zn	Boron	
All Seasons	0.0001	0.53*	4.17	0.1*	0.053*	10.0	* 1/4 MDL

Discharge Information

Season	Flow, MGD	Temp.
Summer	1.00000	12.0
Fall/Spring	1.00000	12.0
Winter	1.00000	12.0

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort coincide with the environmental conditions expected at low stream flows.

Effluent Limitation for Flow based upon Water Quality Standards

In-stream criteria of downstream segments will be met with an effluent flow maximum value as follows:

All Seasons

Not to Exceed:	1.00 MGD	Daily Average
	1.55 cfs	Daily Average

Flow Requirement or Loading Requirement

The calculations in this wasteload analysis utilize the maximum effluent discharge flow of 1 MGD. If the discharger is allowed to have a flow greater than 1 MGD during 7Q10 conditions, and effluent limit concentrations as indicated, then water quality standards will be violated. In order to prevent this from occuring, the permit writers must include the discharge flow limititation as indicated above; or, include loading effluent limits in the permit.

Effluent Limitation for Whole Effluent Toxicity (WET) based upon WET Policy

Effluent Toxicity will not occur in downstream segements if the values below are met.

WET Requirements	LC50 >	EOP Effluent	[Acute]
	IC25 >	75.6% Effluent	[Chronic]

Effluent Limitation for Biological Oxygen Demand (BOD) based upon Water Quality Standards or Regulations

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent BOD limitation as follows:

All Seasons [Based upon Summer Conditions]

	Concentration	
30 Day Average	25.0 mg/l as BOD5	208.5 lbs/day
30 Day Average	20.0 mg/l as COD	166.8 lbs/day

Effluent Limitation for Dissolved Oxygen (DO) based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent D.O. limitation as follows:

All Seasons [Based upon Summer Conditions]

	Concentration
30 Day Average	5.0 mg/l

Effluent Limitation for Total Ammonia based upon Water Quality Standards

In-stream criteria of downstream segments for Total Ammonia will be met with an effluent limitation (expressed as Total Ammonia as N) as follows:

Season		Concentration		Load	
Summer	4 Day Average - Chronic	1.07	mg/l as N	8.9	lbs/day
	1 Hour Average - Acute	4.82	mg/l as N	40.2	lbs/day
Fall/Spring	4 Day Average - Chronic	1.36	mg/l as N	11.3	lbs/day
	1 Hour Averaç Acute	6.07	mg/l as N	50.6	lbs/day
Winter	4 Day Average - Chronic	1.73	mg/l as N	14.5	lbs/day
	1 Hour Averaç Acute	7.71	mg/l as N	64.3	lbs/day

Acute limit calculated with an Acute Zone of Initial Dilution (ZID) to be equal to 100.%.

Effluent Limitation for Total Residual Chlorine based upon Water Quality Standards

In-stream criteria of downstream segments for Total Residual Chlorine will be met with an effluent limitation as follows:

Season	Concentration	Load

Summer	4 Day Average - Chronic	0.015	mg/l	0.1	lbs/day
	1 Hour Average - Acute	0.025	mg/l	0.2	lbs/day
Fall/Spring	4 Day Average - Chronic	0.015	mg/l	0.1	lbs/day
	1 Hour Average - Acute	0.025	mg/l	0.2	lbs/day
Winter	4 Day Average - Chronic	0.015	mg/l	0.1	lbs/day
	1 Hour Average - Acute	0.025	mg/l	0.2	lbs/day

Effluent Limitations for Total Recoverable Metals based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Metals will be met with an effluent limitation as follows (based upon a hardness of 300 mg/l):

	4 Day Average Concentration	Load	1 Hour Average Concentration		Load
Aluminum	N/A ug/l	N/A lbs/day	991.6	ug/l	8.3 lbs/day
Arsenic	251.15 ug/l	1.4 lbs/day	476.1	ug/l	4.0 lbs/day
Cadmium	3.53 ug/l	0.0 lbs/day	17.9	ug/l	0.1 lbs/day
Chromium III	673.22 ug/l	3.6 lbs/day	5,650.0	ug/l	47.1 lbs/day
Chromium VI	13.27 ug/l	0.1 lbs/day	19.9		0.2
Copper	39.75 ug/l	0.2 lbs/day	65.8	ug/l	0.5 lbs/day
Iron			1,322.8	ug/l	11.0 lbs/day
Lead	16.79 ug/l	0.1 lbs/day	437.2	ug/l	3.6 lbs/day
Mercury	0.02 ug/l	0.0 lbs/day	3.2	ug/l	0.0 lbs/day
Nickel	528.20 ug/l	2.8 lbs/day	4,753.3	ug/l	39.6 lbs/day
Selenium	5.27 ug/l	0.0 lbs/day	25.1	ug/l	0.2 lbs/day
Silver	N/A ug/l	N/A lbs/day	35.5	ug/l	0.3 lbs/day
Zinc	355.74 ug/l	1.9 lbs/day	392.8	ug/l	3.3 lbs/day
Cyanide	6.88 mg/l	0.0 lbs/day	5.3	ug/l	0.0 lbs/day
TDS, mg/l	Utah Class 4 @ 1200 mg/l Standard		1,381.8	mg/l	5.8 tons/day
	Salinity Forum @ 1 ton/day Standard		239.9	mg/l	@ 1.0 ton/day

Note: Salinity Forum "standards" apply only in the Colorado Basin.

Effluent Limitations for Organics [Pesticides] Based upon Water Quality Standards

In-stream criteria of downstream segments for Organics [Pesticides] will be met with an effluent limit as follows:

	4 Day Average Concentration	Load	1 Hour Average Concentration		Load
Aldrin			1.5E+00	ug/l	1.93E-02 lbs/day
Chlordane	4.30E-03 ug/l	3.59E-02 lbs/day	1.2E+00	ug/l	1.55E-02 lbs/day
DDT, DDE	1.00E-03 ug/l	8.34E-03 lbs/day	5.5E-01	ug/l	7.09E-03 lbs/day
Dieldrin	1.90E-03 ug/l	1.58E-02 lbs/day	1.3E+00	ug/l	1.61E-02 lbs/day
Endosulfan	5.60E-02 ug/l	4.67E-01 lbs/day	1.1E-01	ug/l	1.42E-03 lbs/day
Endrin	2.30E-03 ug/l	1.92E-02 lbs/day	9.0E-02	ug/l	1.16E-03 lbs/day
Guthion			1.0E-02	ug/l	1.29E-04 lbs/day
Heptachlor	3.80E-03 ug/l	3.17E-02 lbs/day	2.6E-01	ug/l	3.35E-03 lbs/day

Lindane	8.00E-02 ug/l	6.67E-01 lbs/day	1.0E+00	ug/l	1.29E-02 lbs/day
Methoxychlor			3.0E-02	ug/l	3.87E-04 lbs/day
Mirex			1.0E-02	ug/l	1.29E-04 lbs/day
Parathion			4.0E-02	ug/l	5.16E-04 lbs/day
PCB's	1.40E-02 ug/l	1.17E-01 lbs/day	2.0E+00	ug/l	2.58E-02 lbs/day
Pentachlorophenol	1.30E+01 ug/l	1.08E+02 lbs/day	2.0E+01	ug/l	2.58E-01 lbs/day
Toxephene	2.00E-04 ug/l	1.67E-03 lbs/day	7.3E-01	ug/l	9.42E-03 lbs/day

Effluent Targets for Pollution Indicators
Based upon Water Quality Standards

In-stream criteria of downstream segments for Pollution Indicators will be met with an effluent limit as follows:

	1 Hour Average	
	Concentration	Loading
Gross Beta (pCi/l)	50.0 pCi/L	
BOD (mg/l)	5.0 mg/l	41.7 lbs/day
Nitrates as N	4.0 mg/l	33.4 lbs/day
Total Phosphorus as P	0.05 mg/l	0.4 lbs/day
Total Suspended Solids	90.0 mg/l	750.4 tons/day

Note: Pollution indicator targets are for information purposes only.

Effluent Limitations for Protection of Human Health [Toxics Rule]
Based upon Water Quality Standards (Most stringent of 1C or 3A & 3B as appropriate.)

In-stream criteria of downstream segments for Protection of Human Health [Toxics] will be met with an effluent limit as follows:

	Maximum Concentration	
	Concentration	Load
Toxic Organics		
Acenaphthene	1.59E+03 ug/l	1.32E+01 lbs/day
Acrolein	4.23E+02 ug/l	3.53E+00 lbs/day
Acrylonitrile	7.81E-02 ug/l	6.51E-04 lbs/day
Benzene	1.59E+00 ug/l	1.32E-02 lbs/day
Benzidine	ug/l	lbs/day
Carbon tetrachloride	3.31E-01 ug/l	2.76E-03 lbs/day
Chlorobenzene	9.00E+02 ug/l	7.50E+00 lbs/day
1,2,4-Trichlorobenzene		
Hexachlorobenzene	9.92E-04 ug/l	8.27E-06 lbs/day
1,2-Dichloroethane	5.03E-01 ug/l	4.19E-03 lbs/day
1,1,1-Trichloroethane		
Hexachloroethane	2.51E+00 ug/l	2.10E-02 lbs/day
1,1-Dichloroethane		
1,1,2-Trichloroethane	8.07E-01 ug/l	6.73E-03 lbs/day
1,1,2,2-Tetrachloroethane	2.25E-01 ug/l	1.88E-03 lbs/day
Chloroethane		
Bis(2-chloroethyl) ether	4.10E-02 ug/l	3.42E-04 lbs/day
2-Chloroethyl vinyl ether		
2-Chloronaphthalene	2.25E+03 ug/l	1.88E+01 lbs/day
2,4,6-Trichlorophenol	2.78E+00 ug/l	2.32E-02 lbs/day
p-Chloro-m-cresol		
Chloroform (HM)	7.54E+00 ug/l	6.29E-02 lbs/day

2-Chlorophenol	1.59E+02 ug/l	1.32E+00 lbs/day
1,2-Dichlorobenzene	3.57E+03 ug/l	2.98E+01 lbs/day
1,3-Dichlorobenzene	5.29E+02 ug/l	4.41E+00 lbs/day
1,4-Dichlorobenzene	5.29E+02 ug/l	4.41E+00 lbs/day
3,3'-Dichlorobenzidine	5.29E-02 ug/l	4.41E-04 lbs/day
1,1-Dichloroethylene	7.54E-02 ug/l	6.29E-04 lbs/day
1,2-trans-Dichloroethylene1		
2,4-Dichlorophenol	1.23E+02 ug/l	1.03E+00 lbs/day
1,2-Dichloropropane	6.88E-01 ug/l	5.74E-03 lbs/day
1,3-Dichloropropylene	1.32E+01 ug/l	1.10E-01 lbs/day
2,4-Dimethylphenol	7.15E+02 ug/l	5.96E+00 lbs/day
2,4-Dinitrotoluene	1.46E-01 ug/l	1.21E-03 lbs/day
2,6-Dinitrotoluene		
1,2-Diphenylhydrazine	5.29E-02 ug/l	4.41E-04 lbs/day
Ethylbenzene	4.10E+03 ug/l	3.42E+01 lbs/day
Fluoranthene	3.97E+02 ug/l	3.31E+00 lbs/day
4-Chlorophenyl phenyl ether		
4-Bromophenyl phenyl ether		
Bis(2-chloroisopropyl) ether	1.85E+03 ug/l	1.54E+01 lbs/day
Bis(2-chloroethoxy) methane		
Methylene chloride (HM)	6.22E+00 ug/l	5.19E-02 lbs/day
Methyl chloride (HM)		
Methyl bromide (HM)		
Bromoform (HM)	5.69E+00 ug/l	4.74E-02 lbs/day
Dichlorobromomethane(HM)	3.57E-01 ug/l	2.98E-03 lbs/day
Chlorodibromomethane (HM)	5.43E-01 ug/l	4.52E-03 lbs/day
Hexachlorocyclopentadiene	3.18E+02 ug/l	2.65E+00 lbs/day
Isophorone	1.11E+01 ug/l	9.27E-02 lbs/day
Naphthalene		
Nitrobenzene	2.25E+01 ug/l	1.88E-01 lbs/day
2-Nitrophenol		
4-Nitrophenol		
2,4-Dinitrophenol	9.26E+01 ug/l	7.72E-01 lbs/day
4,6-Dinitro-o-cresol	1.72E+01 ug/l	1.43E-01 lbs/day
N-Nitrosodimethylamine	9.13E-04 ug/l	7.61E-06 lbs/day
N-Nitrosodiphenylamine	6.62E+00 ug/l	5.52E-02 lbs/day
N-Nitrosodi-n-propylamine	6.62E-03 ug/l	5.52E-05 lbs/day
Pentachlorophenol	3.70E-01 ug/l	3.09E-03 lbs/day
Phenol	2.78E+04 ug/l	2.32E+02 lbs/day
Bis(2-ethylhexyl)phthalate	2.38E+00 ug/l	1.99E-02 lbs/day
Butyl benzyl phthalate	3.97E+03 ug/l	3.31E+01 lbs/day
Di-n-butyl phthalate	3.57E+03 ug/l	2.98E+01 lbs/day
Di-n-octyl phthlate		
Diethyl phthalate	3.04E+04 ug/l	2.54E+02 lbs/day
Dimethyl phthlate	4.14E+05 ug/l	3.45E+03 lbs/day
Benzo(a)anthracene (PAH)	3.70E-03 ug/l	3.09E-05 lbs/day
Benzo(a)pyrene (PAH)	3.70E-03 ug/l	3.09E-05 lbs/day
Benzo(b)fluoranthene (PAH)	3.70E-03 ug/l	3.09E-05 lbs/day
Benzo(k)fluoranthene (PAH)	3.70E-03 ug/l	3.09E-05 lbs/day
Chrysene (PAH)	3.70E-03 ug/l	3.09E-05 lbs/day
Acenaphthylene (PAH)		
Anthracene (PAH)		
Dibenzo(a,h)anthracene (PAH)	3.70E-03 ug/l	3.09E-05 lbs/day
Indeno(1,2,3-cd)pyrene (PAH)	3.70E-03 ug/l	3.09E-05 lbs/day
Pyrene (PAH)	1.27E+03 ug/l	1.06E+01 lbs/day
Tetrachloroethylene	1.06E+00 ug/l	8.83E-03 lbs/day
Toluene	9.00E+03 ug/l	7.50E+01 lbs/day

Trichloroethylene	3.57E+00 ug/l	2.98E-02 lbs/day
Vinyl chloride	2.65E+00 ug/l	2.21E-02 lbs/day
Pesticides		
Aldrin	1.72E-04 ug/l	1.43E-06 lbs/day
Dieldrin	1.85E-04 ug/l	1.54E-06 lbs/day
Chlordane	7.54E-04 ug/l	6.29E-06 lbs/day
4,4'-DDT	7.81E-04 ug/l	6.51E-06 lbs/day
4,4'-DDE	7.81E-04 ug/l	6.51E-06 lbs/day
4,4'-DDD	1.10E-03 ug/l	9.16E-06 lbs/day
alpha-Endosulfan	1.23E+00 ug/l	1.03E-02 lbs/day
beta-Endosulfan	1.23E+00 ug/l	1.03E-02 lbs/day
Endosulfan sulfate	1.23E+00 ug/l	1.03E-02 lbs/day
Endrin	1.01E+00 ug/l	8.39E-03 lbs/day
Endrin aldehyde	1.01E+00 ug/l	8.39E-03 lbs/day
Heptachlor	2.78E-04 ug/l	2.32E-06 lbs/day
Heptachlor epoxide		
PCB's		
PCB 1242 (Arochlor 1242)	5.82E-05 ug/l	4.85E-07 lbs/day
PCB-1254 (Arochlor 1254)	5.82E-05 ug/l	4.85E-07 lbs/day
PCB-1221 (Arochlor 1221)	5.82E-05 ug/l	4.85E-07 lbs/day
PCB-1232 (Arochlor 1232)	5.82E-05 ug/l	4.85E-07 lbs/day
PCB-1248 (Arochlor 1248)	5.82E-05 ug/l	4.85E-07 lbs/day
PCB-1260 (Arochlor 1260)	5.82E-05 ug/l	4.85E-07 lbs/day
PCB-1016 (Arochlor 1016)	5.82E-05 ug/l	4.85E-07 lbs/day
Pesticide		
Toxaphene	9.66E-04 ug/l	8.05E-06 lbs/day
Metals		
Antimony	18.52 ug/l	0.15 lbs/day
Arsenic	65.90 ug/l	0.55 lbs/day
Asbestos	9.26E+06 ug/l	7.72E+04 lbs/day
Beryllium		
Cadmium		
Chromium (III)		
Chromium (VI)		
Copper	1720.17 ug/l	14.34 lbs/day
Cyanide	926.24 ug/l	7.72 lbs/day
Lead		
Mercury	0.19 ug/l	0.00 lbs/day
Nickel	807.16 ug/l	6.73 lbs/day
Selenium		
Silver		
Thallium	2.25 ug/l	0.02 lbs/day
Zinc		
Dioxin		
Dioxin (2,3,7,8-TCDD)	1.72E-08 ug/l	1.43E-10 lbs/day

Metals Effluent Limitations for Protection of All Beneficial Uses
Based upon Water Quality Standards and Toxics Rule

	Class 4 Acute Agricultural	Class 3 Acute Aquatic Wildlife	Acute Toxics Drinking Water Source	Acute Toxics Wildlife	1C Acute Health Criteria	Acute Most Stringent	Class 3 Chronic Aquatic Wildlife
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Aluminum		991.6				991.6	
Antimony			18.5	5689.8		18.5	
Arsenic	132.3	476.1	65.9			65.9	251.2
Asbestos			9.26E+06			9.26E+06	
Barium					1323.2	1323.2	
Beryllium							
Cadmium	13.2	17.9				13.2	3.5
Chromium (III)		5650.0				5650.0	673.2
Chromium (VI)	132.1	19.9				19.89	13.27
Copper	264.4	65.8	1720.2			65.8	39.7
Cyanide			291105.4			926.2	
Iron		1322.8				1322.8	
Lead	132.1	437.2				132.1	16.8
Mercury		3.18	0.2	0.20		0.19	0.016
Nickel		4753.3	807.2	6086.7		807.2	528.2
Selenium	64.8	25.1				25.1	5.3
Silver		35.5				35.5	
Thallium			2.2	8.3		2.2	
Zinc		392.8				392.8	355.7
Boron	992.4					992.4	

imary Effluent Limitations for Metals [Wasteload Allocation, TMDL]

[If Acute is more stringent than Chronic, then the Chronic takes on the Acute value.]

	WLA Acute ug/l	WLA Chronic ug/l	
Aluminum	991.6		
Antimony	18.52		
Arsenic	65.9	251.2	Acute Controls
Asbestos	9.26E+06		
Barium			
Beryllium			
Cadmium	13.2	3.5	
Chromium (III)	5650.0	673	
Chromium (VI)	19.9	13.3	
Copper	65.8	39.7	
Cyanide	926.2		
Iron	1322.8		
Lead	132.1	16.8	
Mercury	0.185	0.016	
Nickel	807.2	528	
Selenium	25.1	5.3	
Silver	35.5		
Thallium	2.2		
Zinc	392.8	355.7	
Boron	992.40		

Other Effluent Limitations are based upon R317-1.

The permit writers may utilize other information to tighten or make more stringent these limits based upon best available technology and other considerations.

X. Antidegradation Considerations

The Utah Antidegradation Policy allows for degradation of existing quality where it is determined that such lowering of water quality is necessary to accommodate important economic or social development in the area in which the waters are protected [R317-2-3]. It has been determined that certain chemical parameters introduced by this discharge will cause an increase of the concentration of said parameters in the receiving waters. Under no conditions will the increase in concentration be allowed to interfere with existing instream water uses.

Category III waters fall under special rules for the determination of effluent limits. These rules allow more stringent effluent limitations based upon additional factors, including: "Blue-ribbon" fisheries, special recreational areas, and drinking water sources.

XI. Colorado River Salinity Forum Considerations

Discharges in the Colorado River Basin are required to have their discharge at a TDS loading of less than 1.00 tons/day unless shown that this is not attainable. Refer to the Forum's Guidlines for additional information.

The permit writers may utilize other information to adjust these limits and/or to determine other limits based upon best available technology and other considerations.

Summary Comments

The mathematical modeling and best professional judgement indicate that violations of receiving water beneficial uses with their associated water quality standards, including important down-stream segments, will not occur for the evaluated parameters of concern as discussed above if the effluent limitations indicated above are met.

XIII. Notice of UPDES Requirement

This Addendum to the Statement of Basis does not authorize any entity or party to discharge to the waters of the State of Utah. That authority is granted through a UPDES permit issued by the Utah Division of Water Quality. The numbers presented here may be changed as a function of other factors. Dischargers are strongly urged to contact the Permits Section for further information.

Prepared by:
William O. Moellmer, Ph.D.
Utah Division of Water Quality
801-538-6329

Permit No. UT0023604
Minor Industrial

STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

DRAFT

AUTHORIZATION TO DISCHARGE UNDER THE

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM
(UPDES)

In compliance with provisions of the Utah *Water Quality Act, Title 19, Chapter 5, Utah Code Annotated ("UCA") 1953, as amended* (the *"Act"*),

PacifiCorp - Deer Creek Mine

is hereby authorized to discharge from its facility located approximately 8 miles northwest of Huntington in Emery County, Utah, with the outfalls:

001 located at latitude 39°21'36", and longitude 111°06'35"
002 located at latitude 39°21'29", and longitude 111°06'57"

to receiving waters named

Deer Creek, a tributary of Huntington Creek,

in accordance with discharge points, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit modification shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Signed this_____ day of , 2002.

Don A. Ostler, P.E.
Executive Secretary
Utah Water Quality Board

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Definitions.

1. The "30-day (and monthly) average" is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.

2. The "7-day (and weekly) average" is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self- monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains the Saturday.

3. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.

4. "Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the composite sample period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

   a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

   b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

   c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,

   d. Continuous collection of sample, with sample collection rate proportional to flow rate.

5. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

6. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

7. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

8. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

9. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

10. "Executive Secretary" means Executive Secretary of the Utah Water Quality Board.

11. "EPA" means the United States Environmental Protection Agency.

12. "Act" means the "*Utah Water Quality Act*".

13. "Best Management Practices" ("*BMPs*") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. *BMPs* also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

14. "Coal pile runoff" means the rainfall runoff from or through any coal storage pile.

15. "*CWA*" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.

16. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharges. This term does not include return flows from irrigated agriculture or agriculture storm water runoff.

17. "10-year, 24-hour precipitation event" means the maximum 24-hour precipitation event with a probable reoccurrence interval of once in 10 years. This information is available in *Weather Bureau Technical Paper No. 40*, May 1961 and *NOAA Atlas 2*, 1973 for the 11 Western States, and may be obtained from the National Climatic Center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

B. Description of Discharge Point.

The authorization to discharge provided under this permit is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under a UPDES permit is a violation of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act*.

tfall Number	Location of Discharge Points
001	Sediment pond discharge to Deer Creek at latitude 39°21'36" and longitude 111°06'35".
002	Mine discharge to Deer Creek at 39°21'29" and longitude 111°06'57".

C. Narrative Standard.

It shall be unlawful, and a violation of this permit, for the permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures.

D. Specific Limitations and Self-monitoring Requirements.

1. Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfalls 001 and 002. Such discharges shall be limited and monitored by the permittee as specified below:

	Discharge Limitations a/			Monitoring Requirements	
Effluent	Average		Daily	Measurement	Sample
Characteristics	30-Day	7-Day	Maximum	Frequency	Type
Flow, MGD	Report	NA	Report	Monthly	Measured
Total Suspended Solids, mg/L	25	35	70	Monthly	Grab b/
Total Iron, mg/L	NA	NA	1	Monthly	Grab b/
Oil and Grease, yes/no	NA	NA	–	Weekly	Visual c/
TDS,(001) lbs/day	NA	NA	2000	Monthly	Grab b/
TDS,(002) mg/L	NA	NA	1000	Monthly	Grab b/

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units in any sample and shall be monitored monthly by a grab sample.

There shall be no visible sheen or floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes.

N.A. - Not Applicable.

a/ See Definitions, *Part I.A* for definition of terms.

b/ These samples may also be a composite.

c/ A sample for oil and grease is required when a sheen is observed or there is another reason to believe oil is present. If a sample is taken it must be less than 10 mg/L.

2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: at the outfall prior to mixing with any receiving water.

3. Any overflow, increase in volume of a discharge, or discharge from a bypass system caused by precipitation within any 24-hour period less than or equal to the 10-year precipitation event (or snowmelt of equivalent volume) at all surface runoff pond (outfalls) may comply with the following limitation instead of the total suspended solids limitations contained in Part I.D.1:

Effluent Characteristics	Daily Maximum
Settleable Solids	0.5 mL/L

In addition to the monitoring requirements specified under Part I.D.1, all effluent samples collected during storm water discharge events shall also be analyzed for settleable solids. Such analyses shall be conducted on either grab or composite samples.

4. Any overflow, increase in volume of a discharge or discharge from a bypass system caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at all surface runoff pond outfalls may comply with the following limitations instead of the otherwise applicable limitations:

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units. However, as stated under Part I.D.3, all effluent samples collected at all surface runoff pond outfalls during storm water discharge events shall be analyzed for settleable solids and the parameters identified under Part I.D.1.

5. The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event described in Parts I.D.3. and D.4. The alternate limitation in Parts I.D.3. and D.4. shall not apply to treatment systems that treat underground mine water only.

6. The facility must minimize the discharge of salt by using the largest practicable amount of saline water for process and dust control. There shall be no use of gypsum for rock dusting unless the permittee provides sufficient information to the executive secretary such that approval is granted based upon the Colorado River Basin Salinity Control Forum Policies and the fact that it will not significantly increase total dissolved solids concentrations.

E. Storm Water Requirements. It has been determined that the permittee has a regulated storm water discharge as per *UAC R317-8-3.9.*, therefore, the following permit conditions governing storm water discharges apply.

1. Coverage of This Section.

a. Discharges Covered Under This Section. The requirements listed under this section shall apply to storm water discharges from coal mining-related areas (SIC Major Group 12) if they are not subject to effluent limitations guidelines under *40 CFR Part 434.*

(1) Site Coverage. Storm water discharges from the following portions of coal mines may be eligible for this permit: haul roads (nonpublic roads on which coal or coal refuse is conveyed), access roads (nonpublic roads providing light vehicular traffic within the facility property and to public roadways), railroad spurs, sidings, and internal haulage lines (rail lines used for hauling coal within the facility property and to offsite commercial railroad lines or loading areas), conveyor belts, chutes, and aerial tramway haulage areas (areas under and around coal or refuse conveyor areas, including transfer stations), equipment storage and maintenance yards, coal handling buildings and structures, and inactive coal mines and related areas (abandoned and other inactive mines, refuse disposal sites and other mining-related areas on private lands).

b. Limitations. Storm water discharges from inactive mining activities occurring on Federal lands where an operator cannot be identified are not eligible for coverage under this permit.

c. Co-Located Industrial Activities. When an industrial facility, described by paragraph *a.* (above) of this section, has industrial activities being conducted onsite that meet the description(s) of industrial activities in another section(s), that industrial facility shall comply with any and all applicable monitoring and pollution prevention plan requirements of the other section(s) in addition to all applicable requirements in this section. The monitoring and pollution prevention plan terms and conditions of this multi-sector permit are additive for industrial activities being conducted at the same industrial facility. The operator of the facility shall determine which other monitoring and pollution prevention plan section(s) of this permit (if any) are applicable to the facility.

2. Prohibition of Non-storm Water Discharges.

a. The following non-storm water discharges may be authorized by this permit provided the non-storm water component of the discharge is in compliance with this section (Section E): discharges from fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; drinking fountain water; irrigation drainage, lawn watering; routine external building washdown water where detergents or other compounds have not been used in the process; pavement washwaters where spills or leaks of toxic or hazardous materials (including oils and fuels) have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated compressor condensate; uncontaminated springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

b. In addition to the broad prohibition of non-storm water discharges, listed above, point source discharges of pollutant seeps or underground drainage from inactive coal mines and refuse disposal areas that do not occur as storm water discharges in response to precipitation events are also excluded from coverage under this permit. In addition, floordrains from maintenance buildings and other similar drains in mining and preparation plant areas are prohibited.

3. Storm Water Pollution Prevention Plan Requirements. Most of the active coal mining-related areas, described in paragraph *1.*g(1) above, are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the *Surface Mining Control and Reclamation*

Act (SMCRA). OSM has granted authority to the Utah Division of Oil Gas and Mining (DOGM) to implement *SMCRA* through State *SMCRA* regulations. All *SMCRA* requirements regarding control of erosion, siltation and other pollutants resulting from storm water runoff, including road dust resulting from erosion, shall be primary requirements of the pollution prevention plan and shall be included in the contents of the plan directly, or by reference. Where determined to be appropriate for protection of water quality, additional sedimentation and erosion controls may be warranted.

a. Contents of Plan. The plan shall include at a minimum, the following items:

(1) Pollution Prevention Team. Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.

(2) Description of Potential Pollutant Sources. Each plan shall provide a description of potential sources that may reasonably be expected to add significant amounts of pollutants to storm water discharges or that may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials that may potentially be significant pollutant sources. Each plan shall include, at a minimum:

(a) Deadlines for Plan Preparation and Compliance

Pacificorp shall prepare and implement a plan in compliance with the provisions of this permit below within 270 days of the effective date of this permit.

(b) Keeping Plans Current

The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, that has a significant effect on the potential for the discharge of pollutants to the waters of the State or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified by the plan, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with the activities at the mine.

(c) Drainage.

i) A site map, such as a drainage map required for *SMCRA* permit applications, that indicate drainage areas and storm water outfalls. These shall include but not be limited to the following:

a) Drainage direction and discharge points from all applicable mining-related areas described in paragraph *1.a(1).* (Site Coverage) above, including culvert and sump

discharges from roads and rail beds and also from equipment and maintenance areas subject to storm runoff of fuel, lubricants and other potentially harmful liquids.

b) Location of each existing erosion and sedimentation control structure or other control measures for reducing pollutants in storm water runoff.

c) Receiving streams or other surface water bodies.

d) Locations exposed to precipitation that contain acidic spoil, refuse or unreclaimed disturbed areas.

e) Locations where major spills or leaks of toxic or hazardous pollutants have occurred.

f) Locations where liquid storage tanks containing potential pollutants, such as caustics, hydraulic fluids and lubricants, are exposed to precipitation.

g) Locations where fueling stations, vehicle and equipment maintenance areas are exposed to precipitation.

h) Locations of outfalls and the types of discharges contained in the drainage areas of the outfalls.

ii) For each area of the facility that generates storm water discharges associated with the mining-related activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow, and an identification of the types of pollutants that are likely to be present in storm water discharges associated with the activity. Factors to consider include the toxicity of the pollutant; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.

(d) Inventory of Exposed Materials. An inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water 3 years prior to the effective date of this permit; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff 3 years prior to the effective date of this permit; a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

(e) Spills and Leaks. A list of significant spills and leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the effective date of this permit. Such list shall be updated as appropriate during the term of the permit.

(f) Sampling Data. A summary of any existing discharge sampling data describing pollutants in storm water discharges from the portions of the facility covered by this permit, including a summary of any sampling data collected during the term of this permit.

(g) Risk Identification and Summary of Potential Pollutant Sources. A narrative description of the potential pollutant sources from the following activities: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil. Specific potential pollutants shall be identified where known.

(3) Measures and Controls. Each facility covered by this permit shall develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls.

(a) Good Housekeeping. Good housekeeping requires the maintenance of areas that may contribute pollutants to storm water discharges in a clean, orderly manner. These would be practices that would minimize the generation of pollutants at the source or before it would be necessary to employ sediment ponds or other control measures at the discharge outlets. Where applicable, such measures or other equivalent measures would include the following: sweepers and covered storage to minimize dust generation and storm runoff; conservation of vegetation where possible to minimize erosion; watering of haul roads to minimize dust generation; collection, removal, and proper disposal of waste oils and other fluids resulting from vehicle and equipment maintenance; or other equivalent measures.

(b) Preventive Maintenance. A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems. Where applicable, such measures would include the following: removal and proper disposal of settled solids in catch basins to allow sufficient retention capacity; periodic replacement of siltation control measures subject to deterioration such as straw bales;

inspections of storage tanks and pressure lines for fuels, lubricants, hydraulic fluid or slurry to prevent leaks due to deterioration or faulty connections; or other equivalent measures.

(c) Spill Prevention and Response Procedures. Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean up should be available to personnel.

(d) Inspections. In addition to or as part of the comprehensive site evaluation required under paragraph *3.a.(4)* of this section, qualified facility personnel shall be identified to inspect designated areas of the facility at appropriate intervals specified in the plan. The following shall be included in the plan:

i) Active Mining-Related Areas and Those Inactive Areas Under *SMCRA* Bond Authority. The plan shall require quarterly inspections by the facility personnel for areas of the facility covered by pollution prevention plan requirements. This inspection interval corresponds with the quarterly inspections for the entire facility required to be provided by *SMCRA* authority inspectors for all mining-related areas under *SMCRA* authority, including sediment and erosion control measures. Inspections by the facility representative may be done at the same time as the mandatory inspections performed by *SMCRA* inspectors. Records of inspections of the *SMCRA* authority facility representative shall be maintained.

ii) Inactive Mining-Related Areas Not Under *SMCRA* Bond. The plan shall require annual inspections by the facility representative except in situations referred to in paragraph *3.a.(4)(d)* below.

iii) Inspection Records. The plan shall require that inspection records of the facility representative and those of the SMCRA authority inspector shall be maintained. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections.

(e) Employee Training. Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify periodic dates for

such training.

(f) Recordkeeping and Internal Reporting Procedures. A description of incidents (such as spills, or other discharges) along with other information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.

(g) Non-storm Water Discharges.

i) Certification. The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges such as drainage from underground portions of inactive mines or floor drains from maintenance or coal handling buildings. The certification shall include the identification of potential significant sources of non-storm water discharges at the site, a description of the results of any test and/or evaluation, a description of the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with *Part VI.G.* of this permit.

ii) Exceptions. Except for flows from fire fighting activities, authorized sources of non-storm water listed in *Part (2)(a)* that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

iii) Failure to Certify. If the facility is unable to provide the certification required (testing or other evaluation for non-storm water discharges), the *Executive Secretary* must be notified within 180 days after the effective date of this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water to the storm discharge lines; and why adequate tests for such storm discharge lines were not feasible. Non-storm water discharges to waters of the State that are not authorized by a *UPDES* permit are unlawful, and must be terminated.

(h) Sediment and Erosion Control. The plan shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion and reduce sediment concentrations in storm water discharges. As indicated in paragraph *3.* above, *SMCRA*

requirements regarding sediment and erosion control measures are primary requirements of the pollution prevention plan for mining-related areas subject to *SMCRA* authority. The following sediment and erosion control measures or other equivalent measures, should be included in the plan where reasonable and appropriate for all areas subject to storm water runoff:

i) Stabilization Measures. Interim and permanent stabilization measures to minimize erosion and lessen amount of structural sediment control measures needed, including: mature vegetation preservation; temporary seeding; permanent seeding and planting; temporary mulching, matting, and netting; sod stabilization; vegetative buffer strips; temporary chemical mulch, soil binders, and soil palliatives; nonacidic roadsurfacing material; and protective trees.

ii) Structural Measures. Structural measures to lessen erosion and reduce sediment discharges, including: silt fences; earth dikes; straw dikes; gradient terraces; drainage swales; sediment traps; pipe slope drains; porous rock check dams; sedimentation ponds; riprap channel protection; capping of contaminated sources; and physical/chemical treatment of storm water.

(i) Management of Flow. The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (other than those as sediment and erosion control measures listed above) used to manage storm water runoff in a manner that reduces pollutants in storm water runoff from the site. The plan shall provide that the measures, which the permittee determines to be reasonable and appropriate, shall be implemented and maintained. Appropriate measures may include: discharge diversions; drainage/storm water conveyances; runoff dispersion; sediment control and collection; vegetation/soil stabilization; capping of contaminated sources; treatment; or other equivalent measures.

(4) Comprehensive Site Compliance Evaluation. Qualified personnel shall conduct site compliance evaluations at intervals specified in the plan, but in no case less than once a year. Such evaluations shall provide:

(a) Areas contributing to a storm water discharge associated with coal mining-related areas shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. These areas include haul and access roads; railroad spurs, sidings, and internal haulage lines; conveyor belts, chutes and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution

prevention measures, as indicated in paragraphs *3.a.(3)(h)* and *3.a.(3)(i)* above and where identified in the plan, shall be observed to ensure that they are operating correctly. A visual evaluation of any equipment needed to implement the plan, such as spill response equipment, shall be made.

(b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan, in accordance with paragraph *3.a.(2)* of this section, and pollution prevention measures and controls identified in the plan, in accordance with paragraph *3.a.(3)* of this section, shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner. For inactive mines, such revisions may be extended to a maximum of 12 weeks after the evaluation.

(c) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph *3.a.(4)(b)* above shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with *Part VI.G.* (Signatory Requirements) of this permit.

(d) Where compliance evaluation schedules overlap with inspections required under *3.a.(3)(d)*, the compliance evaluation may be conducted in place of one such inspection. Where annual site compliance evaluations are shown in the plan to be impractical for inactive mining sites due to the remote location and inaccessibility of the site, site inspections required under this part shall be conducted at appropriate intervals specified in the plan, but, in no case less than once in 3 years.

4. Numeric Effluent Limitations. There are no additional numeric effluent limitations beyond those described in *Part I.D.* of this permit.

5. Monitoring and Reporting Requirements.

a. Analytical Monitoring Requirements. The permittee must monitor their storm water discharges associated with industrial activity at least quarterly (4 times per year) during years 2 and 4 of the permit cycle except as provided in paragraphs *5.a.(3)* (Sampling Waiver), *5.a.(4)* (Representative Discharge), and *5.a.(5)* (Alternative Certification). The Permittee is required to monitor their storm water discharges for the pollutants of concern listed in Table E. below. Reports must be made in accordance with *5.b.* (Reporting). In addition to the parameters listed in Table E. below, the Permittee must provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm

event; and an estimate of the total volume (in gallons) of the discharge sampled.

Table E.
Monitoring Requirements for Coal Mining Facilities

Pollutants of Concern	Cut-Off Concentration
Total Recoverable Aluminum	0.75 mg/L
Total Recoverable Iron	1.0 mg/L
Total Suspended Solids	100 mg/L

(1) Monitoring Periods. Coal mining facilities shall monitor samples collected during the sampling periods of: January through March, April through June, July through September, and October through December for the years specified in paragraph *a.* (above).

(2) Sample Type. A minimum of one grab sample shall be taken. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the facility. The required 72-hour storm event interval may also be waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the discharger shall submit with the monitoring report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated with industrial activity commingle with process or nonprocess water, then where practicable permittees must attempt to sample the storm water discharge before it mixes with the non-storm water discharge.

(3) Sampling Waiver.

(a) Adverse Conditions. When a discharger is unable to collect samples within a specified sampling period due to adverse climatic conditions, the discharger shall collect a substitute sample from a separate qualifying event in the next monitoring period and submit the data along with the data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen

conditions, etc.).

(b) Low Concentration Waiver. When the average concentration for a pollutant calculated from all monitoring data collected from an outfall during the second year monitoring is less than the corresponding value for that pollutant listed in Table E. under the column Monitoring Cut-Off Concentration, a facility may waive monitoring and reporting requirements for the fourth year monitoring period. The facility must submit to the *Executive Secretary*, in lieu of the monitoring data, a certification that there has not been a significant change in industrial activity or the pollution prevention measures in area of the facility that drains to the outfall for which sampling was waived.

(c) Inactive and Unstaffed Site. When a discharger is unable to conduct quarterly chemical storm water sampling at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirements as long as the facility remains inactive and unstaffed. The facility must submit to the *Executive Secretary*, in lieu of monitoring data, a certification statement on the *Storm Water Discharge Monitoring Report* (*SWDMR*) stating that the site is inactive and unstaffed so that collecting a sample during a qualifying event is not possible.

(4) Representative Discharge. When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may test the effluent of one of such outfalls and report that the quantitative data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan. The permittee shall include the description of the location of the outfalls, explanation of why outfalls are expected to discharge substantially identical effluents, and estimate of the size of the drainage area and runoff coefficient with the *SWDMR*.

(5) Alternative Certification. A discharger is not subject to the monitoring requirements of this section provided the discharger makes a certification for a given outfall or on a pollutant-by-pollutant basis in lieu of monitoring

reports required under paragraph *b.* below, under penalty of law, signed in accordance with *Part VI.G.* (Signatory Requirements), that material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, industrial machinery or operations, or significant materials from past industrial activity that are located in areas of the facility within the drainage area of the outfall are not presently exposed to storm water and are not expected to be exposed to storm water for the certification period. Such certification must be retained in the storm water pollution prevention plan, and submitted to *DWQ* in accordance with *Part V.B.* of this permit. In the case of certifying that a pollutant is not present, the permittee must submit the certification along with the monitoring reports required under paragraph *b.* below. If the permittee cannot certify for an entire period, they must submit the date exposure was eliminated and any monitoring required up until that date. This certification option is not applicable to compliance monitoring requirements associated with effluent limitations.

b. Reporting. Permittees shall submit monitoring results for each outfall associated with industrial activity [or a certification in accordance with Sections *(3)*, *(4)*, or *(5)* above] obtained during the second year reporting period, on *Storm Water Discharge Monitoring Report* (*SWDMR*) form(s) postmarked no later than the 31st day of the following March. Monitoring results [or a certification in accordance with Sections *(3)*, *(4)*, or *(5)* above] obtained during the fourth year reporting period shall be submitted on *SWDMR* form(s) postmarked no later than the 31st day of the following March. For each outfall, one signed *SWDMR* form must be submitted to the *Executive Secretary* per storm event sampled. Signed copies of *SWDMR*s, or said certifications, shall be submitted to the *Executive Secretary* at the address listed in *Part II.D.* of the permit.

(1) Additional Notification. In addition to filing copies of discharge monitoring reports in accordance with paragraph *b.* (above), coal-mining related facilities with at least one storm water discharge associated with industrial activity through a large or medium municipal separate storm sewer system (systems serving a population of 100,000 or more) must submit signed copies of discharge monitoring reports to the operator of the municipal separate storm sewer system in accordance with the dates provided in paragraph *b.* (above).

c. Visual Examination of Storm Water Quality. Coal mining-related facilities shall perform and document a visual examination of a representative storm water discharge at the following frequencies: quarterly for active areas under *SMCRA* bond located in areas with average annual precipitation over 20 inches; semi-annually for inactive areas under *SMCRA* bond, and active areas under *SMCRA* bond located in areas with average annual precipitation of 20 inches or less; visual examinations are not required at inactive areas not under *SMCRA* bond.

(1) Visual Monitoring Periods. Examinations shall be conducted in each of the following periods for the purposes of visually inspecting storm water runoff or snow melt: Quarterly-January through March; April through June; July through September; and October through December. Semi-annually—January through June and July through December.

(2) Sample and Data Collection. Examinations shall be made of samples collected within the first 60 minutes (or as soon thereafter as practical, but not to exceed two hours) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual will carry out the collection and examination of discharges for the life of the permit.

(3) Visual Storm Water Discharge Examination Reports. Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

(4) Representative Discharge. When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may collect a sample of effluent of one of such outfalls and report that the examination data also applies to the substantially identical outfalls provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explaining in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan.

(5) Adverse Conditions. When a discharger is unable to collect samples over the course of the visual examination period as a result of adverse climatic conditions, the discharger must document the reason for not performing the visual examination and retain this documentation onsite with the records of the visual examination. Adverse weather conditions which may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricanes, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

(6) Inactive and Unstaffed Site. When a discharger is unable to conduct visual storm water examinations at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirement as long as the facility remains inactive and unstaffed. The facility must maintain a certification with the pollution prevention plan stating that the site is inactive and unstaffed so that performing visual examinations during a qualifying event is not feasible.

MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Sludge samples shall be collected at a location representative of the quality of sludge immediately prior to the use-disposal practice.

B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under *Utah Administrative Code ("UAC") R317-2-10*, unless other test procedures have been specified in this permit.

C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

D. Reporting of Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), post-marked no later than the 28th day of the month following the completed reporting period. The first modified report is due on _____ . If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part IV.G)*, and submitted to the Director, Division of Water Quality and to EPA at the following addresses:

original to: Department of Environmental Quality
Division of Water Quality
288 North 1460 West
PO Box 144870
Salt Lake City, Utah 84114-4870

E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10* or as otherwise specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.

G. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements:

2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,
6. The results of such analyses.

H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Secretary at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting.

1. The permittee shall (orally) report any noncompliance which may seriously endanger health or environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality, (801) 538-6146, or 24 hour answering service (801) 536-4123.

2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4123 as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:

   a. Any noncompliance which may endanger health or the environment;

   b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See *Part III.G, Bypass of Treatment Facilities.)*;

   c. Any upset which exceeds any effluent limitation in the permit (See *Part III.H, Upset Conditions.*); or,

   d. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.

3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

   a. A description of the noncompliance and its cause;

   b. The period of noncompliance, including exact dates and times;

   c. The estimated time noncompliance is expected to continue if it has not been

corrected; and,

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.

4. The Executive Secretary may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 538-6146.

5. Reports shall be submitted to the addresses in *Part II.D, Reporting of Monitoring Results.*

J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part II.D* are submitted. The reports shall contain the information listed in *Part II.I.3.*

K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location.

COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions. The *Act* provides that any person who violates a permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions of the Act is subject to a fine not exceeding $25,000 per day of violation; Any person convicted under *UCA 19-5-115(2)* a second time shall be punished by a fine not exceeding $50,000 per day. Except as provided at *Part III.G, Bypass of Treatment Facilities* and *Part III.H, Upset Conditions*, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Removed Substances. Collected screening, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.

G.. Bypass of Treatment Facilities.

1. Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur which does not cause

effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to 2. and 3. of this section.

2. Prohibition of Bypass.

   a. Bypass is prohibited, and the Executive Secretary may taken enforcement action against a permittee for bypass, unless:

      (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;

      (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

      (3) The permittee submitted notices as required under section G.3.

   b. The executive Secretary may approve an anticipated bypass, after considering its adverse effects, if the Executive Secretary determines that it will meet the three conditions listed in sections G.2a. (1), (2) and (3).

3. Notice.

   a. Anticipated bypass. Except as provided above in section G.2. and below in section G. 3.b, if the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Executive Secretary:

      (1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages:

      (2) A specific bypass plan describing the work to be performed including scheduled dates and times. The permittee must notify the Executive Secretary in advance of any changes to the bypass schedule;

      (3) Description of specific measures to be taken to minimize environmental and public health impacts;

      (4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;

      (5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and

      (6) Any additional information requested by the Executive Secretary.

   b. Emergency Bypass. Where ninety days advance notice is not possible, the permittee must notify the Executive Secretary, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Executive Secretary the information in section G.3.a.(1) through (6i) to the extent practicable.

c. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass to the Executive Secretary as required under Part II.I., Twenty Four Hour Reporting. The permittee shall also immediately notify the Director of the Department of Natural Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2. of this section are met. Executive Secretary's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

   b. The permitted facility was at the time being properly operated;

   c. The permittee submitted notice of the upset as required under *Part II.I, Twenty-four Hour Notice of Noncompliance Reporting*; and,

   d. The permittee complied with any remedial measures required under *Part III.D, Duty to Mitigate.*

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987* for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

A. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that

discharge will exceed the highest of the following "notification levels":

a. One hundred micrograms per liter (100 ug/L);

b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)* or (10); or,

d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

a. Five hundred micrograms per liter (500 ug/L);

b. One milligram per liter (1 mg/L) for antimony:

c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,

d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

K. Industrial Pretreatment. Any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of *The Water Quality Act of 1987*, the permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at *40 CFR 403*, the State Pretreatment Requirements at *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters.

In addition, in accordance with *40 CFR 403.12(p)(1)*, the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under *40 CFR 261*. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

GENERAL REQUIREMENTS

A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, the permittee shall give notice to the Executive Secretary of any planned changes at least 30 days prior to their implementation.

B. Anticipated Noncompliance. The permittee shall give advance notice to the Executive Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.

F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.

G. Signatory Requirements. All applications, reports or information submitted to the Executive Secretary shall be signed and certified.

1. All permit applications shall be signed by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted

to the Executive Secretary, and,

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph *IV.G.2* is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph *IV.G.2* must be submitted to the Executive Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Penalties for Falsification of Reports: The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Executive Secretary. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential.

J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.

K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or

any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers. This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Executive Secretary at least 20 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.

N. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *UCA 19-5-117*.

O. Water Quality-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.

2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.

3. A revision to the current Water Quality Management Plan is approved and adopted which calls for different effluent limitations than contained in this permit.

P. Toxicity Limitation -Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include, whole effluent toxicity (WET) limitations, a compliance date, a compliance schedule, a change in the whole effluent toxicity (biomonitoring) protocol, additional or modified numerical limitations, or any other conditions

related to the control of toxicants if one or more of the following events occur;

1. Toxicity is detected, as per Part I, D.4 and/or 5 of this permit, during the duration of this permit.

2. The TRE results indicate that compliance with the toxic limits will require an implementation schedule past the date for compliance and the Executive Secretary agrees with the conclusion.

3. The TRE results indicate that the toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits, and the Executive Secretary agrees that numerical controls are the most appropriate course of action.

4. Following the implementation of numerical control(s) of toxicant(s), the Executive Secretary agrees that a modified biomonitoring protocol is necessary to compensate for those toxicants that are controlled numerically.

5. The TRE reveals other unique conditions or characteristics which, in the opinion of the Executive Secretary, justify the incorporation of unanticipated special conditions in the permit.